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With Which Is Combined

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Hear Supplemental Code for Newsprint Industry

Edgar Rickard of the Code Authority Says Only Change Is Inclusion of An Exclusive NRA Proposal Providing for the Creation of a Newsprint Planning and Adjustment Board—Elisha Hanson for Publishers Says Plan Is Offensive and Cites as One Obstacle Enjoining Decree Against Newsprint Manufacture in 1917

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 8, 1934—Hearing was held on August 3 before Lieutenant David H. Tulley, NRA Deputy Administrator in connection with proposed recommendations in respect to the stabilization of the newsprint industry and the elimination of unfair practices and destructive competitive prices.

Edgar Rickard, chairman of the Newsprint Code Authority made a short statement on behalf of the industry. Others appearing as witnesses were; Elisha Hanson and Bainbridge Colby, as counsel for the American Newspaper Publishers Association; L. A. Rossman, publisher of the Grand Rapids (Minnesota) Herald Review; Floyd Chalfonte, representing the Pennsylvania Newspaper Publishers Association; Paul Patterson, of Scripps-Howard newspapers; Matthew J. Burns, International Brotherhood of Paper Makers and J. W. Taylor, of Pejepscot, Me., representing the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers.

Lieutenant Tulley was assisted by J. I. Robinson, representing NRA Legal Division; Mr. Sassman, Labor Board; Mr. Sudler, Industrial Board; Mr. McQuire, Consumers Board, and G. K. Hamill, Research and Planning Division.

Edgar Rickard Makes Opening Statement

Mr. Rickard made the opening statement. "The recommendations of the Newsprint Code Authority, which are the subject of the hearing today," he said, "differ only from the previous document submitted at the public hearing on February 1 by the inclusion of an exclusive NRA proposal providing for the creation of a Newsprint Planning and Adjustment Board.

"This major and important addition to recommendations was submitted," he continued, "to a joint conference of the ANPA, presidents of paper mill unions, and public officials of the State of Maine in Washington on April 3, 1934. This conference was arranged by the NAR for the specific purpose of submitting this NRA plan.

"The Newsprint Code Authority accepted the NRA suggestions for the creation of this Board and has approved the functions assigned to the Board The inclusion of these suggestions necessitated eliminations and adjustments of the wording of the recommendations in order to harmonize other provisions with the plan to create this Board. In effect, the Planning Board provides for the joint discussions between producer and consumer, which the newsprint manufacturers voluntarily proposed in June 1933, and which proposal was rejected by the publishers.

"The newsprint manufacturers fully stated their case in hearings held September 6, 1933, and on February 1 and February 13, 1934, together with accompanying exhibits and subsequent briefs. The record also includes the illuminating reports of the Industrial Advisor to the NRA on this subject. We find some difficulty in understanding why it was deemed necessary to call this public hearing."

Elisha Hanson Appears for Publishers

Elisha Hanson made the principal statement for the publishers during the course of which he said that he believed that "this supplemental code is even more offensive than any of the other suggestions or proposals advanced by the manufacturers to date." In full Mr. Hanson said:

I appear as attorney for the American Newspaper Publishers Association. The membership of this Association includes more than 400 publishers of daily newspapers in the United States. These publishers in turn consume in excess of 80 percent of the newsprint paper used in this country. The association has been functioning in the interest of all newspapers in national problems for nearly fifty years. The views of the association in respect of the various attempts of the Canadian and United States manufacturers of newsprint paper to establish a monopoly in our domestic market, with all of the inherent powers of monopoly looking towards price fixing, parceling of consumers and control of the use of newsprint paper, have been given to you in full on several occasions in the past.

In order that the record may be complete and in view of the fact that we have a new deputy administrator presiding at this hearing, I respectfully ask at the outset that you take into consideration the statements made at the original hearing on the Newsprint Code last September, the testimony offered at the hearing on February 1 on the first Sup-

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Chicago Paper Market Conditions Improving

Slight Increase In Book Paper Manufacturing Operations Reflects Better Situation—Demand for Bond and Ledger Papers Broadens—Kraft Wrapping Paper Continues Firm From Mill Standpoint—Paper Stock Quiet and Unchanged

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., August 6, 1934.—The Chicago paper marker gave a slightly better account of itself during the final two weeks of July. The comparative stability of the industry in this district is indicated by federal reserve reports of June 15 showing the 577 paper and printing firms reporting a 1.8 per cent decline in wage earners and 1.7 per cent in earnings as compared to a 4 per cent decline in both as reported by ten manufacturing groups.

The Kraft market continues firm from a mill standpoint. Demand is comparatively slow, as business awaits the Fall improvement. The book representatives in this market are encouraged over the outlook and for the reported slight increase in mill activity which reflects the better situation. Fine papers, including bonds and ledgers of various grades, are little changed although commentators indicate a broadening of demand obviously running encouragingly in contrast to the halt in business. No great amount of activity is expected until the Fall season gets under way. Ground woods still report uncertainty over the newsprint situation, although the local market is virtually unchanged. Board is occupying the slack season preparing for Fall with a new array of products and sales plans. The waste market locally is quiet and little changed.

Paperboard Manual Issued

A twenty-two page manual including the standards adopted by members of the National Paperboard Association effective July 1, was issued to the trade from the Chicago offices a short time ago. The standard rules and regulations were adopted by the association, representing manufacturers of paperboard for use in corrugated and solid fiber boxes and folding and set-up boxes. The basic facts for establishing the standard gauge lists and other information were obtained from investigation of current practice in large and small paperboard mills scattered over a wide area. This was accomplished by individual inspection of mill records covering a period of several months by trained investigators. "The adherence to standards and regulations by each producer is essential for maintenance of uniformity and establishment of fair competition" according to the foreword. The manual is divided into three major heads covering boxboard, container board, and the invoicing of boxboard. Gauge lists covering non-bending, bending, solid news and solid wood pulpboard, pasted chipboard, pasted solid newsboard, patent coated and solid manila board, patent coated two sides and double manila wood pulp filled board are included for the boxboard industry as well as gauge lists for test container board, weights per thousand square feet—test—and for thousand square feet—non-test, are listed for the container board division. General information, applicable to all grades, occupies the closing pages of the manual.

Salesmen Hold Third Golf Outing

Prize winners for the third of the series of golf outings sponsored by the Middle West Division of the Salesmen's Association, have been announced by Mr. Cook, golf chairman. The Bob-O-Link outing held on July 20 attracted a large attendance and was again the means of drawing together a real bunch of fellows who thoroughly enjoyed the luncheon, golf and dinner program and song fest. W. J. Tilden, Eastern Manufacturing Company, was a "repeat" as far as low gross was concerned, the Eastern representative again winning low gross honors. Other prize winners, low net, 17 or under, B. Fisher; low net, 18 handicap and over, H. Berge; low net, first nine holes, R. Johnson; low net second nine, Warren Moore; low putts, Frank Prentiss; low putts foresome, C. Sherman, R. B. Harbison, A. Brown and R. R. Cook; low net foresome, C. Rasmussen, A. F. Brubaker, R. C. Johnson and I. L. Gartland; Blind Bogey, H. Engel. Other prize winners were: consolidation blind bogey, A. Brown, H. Pfister, E. D. Buchanan and C. Sherman; high putt foresome, H. W. Knott, I. L. Meyers, A. S. Harmon and J. H. Coy, Jr.; high gross foresome, F. J. Haggerty, R. Wesley, A. W. Stompe and W. Schulman; high gross on one hole, I. L. Gartland, low score on par three hole, Bob Armstrong and Bob Harbison, R. Hanson walked off with the SAPEYE golf trophy.

News of the Trade

Plans are already being made to put Chicago in readiness as the host to the Fall Convention of the National Paper Trade Association, to be held at the Hotel Stevens September 24, 25 and 26. Paper executives can count on a golf finale for their business sessions inasmuch as the Middle West Division of the Salesmen's Association is set with its Fall outing and annual golf event for September 27. The course has not yet been selected but the industry can count on a royal good time with the salesmen as the hosts.

The Field Paper Company recently leased space in the One Eleven building, 111 North Canal street, the space being more than thirty times greater than that occupied by the company at their old address, 221 North LaSalle street. The company was founded in 1933 by Frank E. Field, the firm dealing in bonds, ledgers, offsets and allied lines. The new location will give the Field Paper Company opportunity to increase its already representative stock of papers and to utilize space for storage purposes. Mr. Field reports that greatly increased business made the move necessary. The new telephone number is Randolph 4360.

The Chippewa Paper Products Company has recently been incorporated by J. S. Druth, Florence Druth and Harry Pomeroy. The corporation headquarters are to be at 522 West Erie street and the business will be conducted as a brokerage house for envelopes and allied lines.

Joe Pirie, divisional code authority for the paper industry, will speak at the regular Monday noon, August 6, meeting of the Middle West Division, Salesmen's Association of the Paper Industry. Mr. Pirie wil discuss the operations of the merchants code, and his appearance, coupled with the interest evidenced in the code by the association membership, is certain to atract a large crowd to the Hamilton Club for the program.

The Sutherland Paper Company sales offices at 66 East South Water street, Chicago, reported that the net profit of the company for the first half of 1934 was $202,797, equal to 70 cents per share of common stock, compared with $115,221 or 40 cents a share in the first six months of 1933.

U. S. Fine Paper Mills Invade Canadian Market

Several United States Manufacturers Establish Distributing Branches In Ontario—Nothing In Way of Dumping Anticipated—Quotations on All Standard Grades of Fine Paper Continue Firm, Although Volume of Sales Is Restricted

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., August 6, 1934.— A development in the Canadian fine paper industry of the past few weeks is the presence in the Dominion of a number of representatives of United States mills who are seeking to re-open the Canadian markets for their products. In certain cases the United States manufacturers have actually established distributing branches in Ontario. It is acknowledged that the American invasion of the fine paper market in this country has not created any concern among the Canadian maufacturers and nothing in the way of dumping is looked for.

In the meantime prices of all fine papers continue firm and the same may be said of prices in the coarse paper field. Volume selling is light just now, owing to the prevailing holiday season, but most paper merchants report a better volume than was looked for at this season when both buyers and sellers are off on holidays. Greatly improved conditions have been noted in the coated paper field both by the manufacturers and the distributors and business in this line of paper is quite good.

Sulphite bonds are in fair demand and there is also a good call for Canadian-made blanks, covers and blotters considering the season. There is a distinctly bright outlook for fall business in all the paper sections and in the meantime the paper market generally is suffering less than was anticipated. With a re-union of 75,000 ex-Canadian service men of the Canadian Corps, at the beginning of August and the big Canadian National Exhibition opening its gates the latter part of the month, the consumption of paper will be materially augmented in Toronto.

Presentation to Leo E. Charles

Colleagues and friends of Leo E. Charles, president and managing director of the Victoria Paper and Twine Company, Ltd., Toronto, waited on him a few days ago and felicitated him on the celebration of his twenty-fifth year of association with Victoria and associated companies, Garden City Paper Mills, and Canadian Vegetable Parchment Company. Reading an address of congratulation S. W. Ewing, manager of the Montreal office, referred in complimentary terms to Mr. Charles' popularity and his successful business career. The address, which was handsomely illuminated, was executed by a member of the Victoria staff on greeting card vegetable parchment stock made at the company's mill at Merritton, Ont. A suitable gift accompanied it and various executives and other employees had a lot of good words to say of their chief.

Samuel J. Moore Honored

Samuel J. Moore, creator of the Moore Corporation, which is a large consumer of paper, was honored by many of his business associates in Canada at a luncheon in Toronto given him in honor of his 75th birthday. Mr. Moore is a former president and present chairman of the board of the Bank of Nova Scotia and head of eight big companies in the States. As a small English immigrant boy, he came to Barrie, Ont., nearly seventy years ago. At twelve he was printer's devil on the old *Barrie Gazette*. A few years later he turned up in Toronto as the business manager of a weekly paper during which he got interested in a counter sales book idea. It was in commercializing this idea that Mr. Moore got his real start and he became the founder of what developed into a new business of world importance. This and similar forms were manufactured. A small amount of Canadian capital, only a few thousand, was raised among four or five friends, and factories were opened in the United States. The various businesses of the Moore Corporation making business forms extend right across the United States and Canada, with head offices in Toronto and Mr. Moore as president. Although between eight and ninety per cent of Mr. Moore's business is carried on in the United States, the enterprise is carried on from Toronto, where the head office is situated.

Notes and Jottings of the Trade

The Moore Corporation, Ltd., Toronto, which owns and operates Burt Business Forms, Ltd.; Western Sales Book Company, Ltd., and four similar companies with factories located in the United States, has purchased the business of National Sales Check Books, Ltd. The business will be operated under the name of National Sales Check Book Company, Ltd., and the head office will be located at Montreal.

H. V. Roper, export manager of the Howard Smith Paper Mills, Ltd., has returned from a trip abroad, having visited England, France, Belgium and Holland. While in the Old Country he contacted the distributors and agents representing his company with a view to investigating present conditions and determining if there are any additional lines which might be profitably sold in these markets.

Building Products, Ltd., of Montreal, in keeping with the company's policy for economical operation and progress, has just completed the purchase of property in Winnipeg for the manufacture of roofing products, such as asphalt shingles and sidings, built-up roof materials, roll roofings, building papers, insulating boards, wallboard and other allied roofing and paper lines.

Two of British Columbia's pulp and paper plants were visited recently by members of the Vancouver Board of Trade during the course of their seventeenth annual goodwill cruise up the British Columbia Coast. The voyage lasted over ten days and stops were made at the Powell River and Ocean Falls plants.

During the past year trade in paper bags and other paper products from British Columbia has been considerably developed with Malta, according to A. B. Muddiman, Canadian Trade Commissioner to Mediterranean countries. Mr. Muddiman included Italy, Spain, Portugal, Gibraltar, Malta, Albania and Yugo-Slavia in his territory.

American Writing Changes

HOLYOKE, Mass., August 7, 1934.—The resignation of Robert C. Fay of the sales department of the American Writing Paper Company, Inc., was announced the past week. He has been with the company for the past eight years coming from Chicago. The resignation was also announced of Raymond E. Kilty, assistant superintendent of the Mt. Tom Division of the same company to become New England agent of the Staley Paper Mill Supply Company. Mr. Kilty came to Holyoke from Windsor Locks, Conn.

Activities of Wisconsin Paper Manufacturers

Operating Results of Mosinee Paper Mills Co. Improve Considerably—Position of Tomahawk Kraft Paper Co. Improves Materially—Kimberly-Clark Corp. Begins Remodeling of Ground Wood Plant at Niagara, Wis.—Fox River Workers Form Credit Unions

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, WIS., August 6, 1934 — Considerably improved operating results were shown by the Mosinee Paper Mills Company, Mosinee, Wis., and the Tomahawk Kraft Paper Company, Tomahawk, Wis., for the fiscal year ending May 31, 1934, according to statements sent out by bondholders' protective committees of the two concerns.

Mosinee company almost emerged from the red. Its loss for the year was $4,821 after all charges, including depreciation, compared with loss of $297,974 for the year ending May 31, 1933. Profit before depreciation was $110,859, against a deficit of $249,867 before depreciation the preceding year. Net sales for 1934 were $1,571,310, as against $1,005,814 the previous year. The *pro forma* balance sheet, giving consideration to an approved refinancing plan, showed current assets May 31 of $840,205, against current liabilities of $453,448. Inventories totalled $562,819.

Sale of $250,000 of collateral trust notes, provided for in the refinancing plan, has been completed and payments are being received at the rate of 5 per cent a month. Proceeds are being used to liquidate the bank indebtedness of the company existing at the time of the re-organization agreement. The surplus analysis shows a deficit May 31 of $409,746.

Tomahawk Kraft Paper Company had a net loss for the year ended May 31 of $65,522 after all charges, compared with a deficit of $317,612 the preceding twelve months. Net sales were $1,311,379, against $750,222 the previous year.

Current assets amounted to $459,431, compared with current liabilities of $557,690.

The Tomahawk Kraft Protective Committee, headed by Joseph A. Auchter, of the Securities Company, of Milwaukee, stated $782,400 of bonds, or 68.03 per cent of the total outstanding, have been deposited. Additional deposits were urged, so the reorganization plan may become effective. Ninety per cent of the bonds must be deposited in approval of the plan before it can be adopted.

Balsam Pulpwood Movement

Experimental handling of balsam pulpwood via raft across Lake Superior has met with success this summer on the part of the Consolidated Water Power and Paper Company, which operates a rail loading hoist at Ashland, Wis. A raft of 8,000 cords was brought over from Canada by the company's Newaygo Tug Line, and very little shrinkage was experienced. In the past trouble was experienced because balsam sinks easily, and is slippery to handle when water-soaked. Practically no difficulty was experienced in handling the trial raft. Plenty of balsam is still standing in the pulpwood forest areas, and mills are expected to use more of it as a result of this situation.

One raft has been delivered to the new dock at Ashland, Wis., operated by the Superior Spruce Company. The company was organized this year and erected a new hoist using an overhead electric mono-rail to reload the wood on cars. Most of the wood is being shipped to the Rhinelander Paper Company, Rhinelander, Wis.

News of the Industry

Kimberly-Clark Corporation has started the remodeling of its ground wood mill at Niagara, Wis. A new roof is being built over the entire department, and the wooden supports are being replaced with steel girders. Some of the obsolete equipment in the mill will be dismantled and replaced. A crew of about forty men is employed on the improvements. Robert Burnside, engineer from the main office at Neenah, Wis., is in charge of the work.

A plan to unionize employees of the Marinette and Menominee Paper Company, Marinette, Wis., a branch of the International Paper Company, met with little success. A meeting had been called for Sunday evening, July 29, at which the proposal was to be submitted to employees by ex-Congressman George J. Schneider, organizer for the paper mill brotherhoods. The meeting was called off when leaders were informed that the employees were perfectly content to arbitrate their labor disputes through the plant council. Mr. Schneider expressed himself satisfied with the course the employees were taking, when informed of the situation.

Employees of the Fox River Paper Company, Appleton, Wis., and the Bergstrom Paper Company, Neenah, Wis., have organized credit unions similar to those in numerous other Wisconsin mills. Shares are sold at five dollars each, and the purpose is to promote thrift, and to provide a source of small loans to workmen. The credit unions are chartered under the state banking department of Wisconsin. The capital is unlimited.

R. A. Peterson, of the Valley Iron Works Company, and C. E. Saecker, of the Appleton Machine Company, both of Appleton, Wis., will represent Wisconsin equipment concerns in administering the code of the Beater, Jordan and Allied Equipment Manufacturing Industries. Their appointment was announced last week by the NRA offices at Washington, D. C.

Distribution of sludge from the Stevens Point Pulp and Paper Company's mill at McDill will be carried on as an employment relief project. The sludge will be hauled to farms within a reasonable distance to be used as fertilizer. The sludge has been made available to all farmers who request it.

August is a month of picnics among employees of a number of mills. About 2,500 attended the outing of the carton division of the Marathon Paper Mills Company, Menasha, Wis., last Saturday. Employees of the Neenah, Wis., Mills of the Kimberly-Clark Corporation are to hold their picnic Friday, August 10, at the park at Menasha. Banta Publishing Company employees will gather August 18 for their outing. Two-hundred employees of the Tuttle Press Company, Appleton, Wis., will go via special train to Chicago August 18 and 19 to attend the Century of Progress exposition. They have been given a special excursion arrangement which provides for railroad fare, hotel accommodations, admittance to the World's Fair grounds, and transportation and guides in Chicago.

New Brown Co. Distributor

HAVERHILL, Mass., Aug. 3, 1934.—The Brown Company, Portland, Me., has appointed the Edmund Little Company here as distributor of paper towels.

NOW when good beater Rolls are so absolutely necessary in stock preparation you should change your rolls to the Dilts patented all-steel Bandless Type, — both in your breaker beaters and in your finishing beaters.

MORE THAN ONE THOUSAND

Dilts Bandless Rolls, and MANY HUNDRED (built since 1866) Dilts Standard Rolls with bands, equip the paper mills in five continents.

— Dilts —

MACHINE WORKS Inc. FULTON, N.Y.

"Your Paper Is Made in Your Beaters"

Tappi Fall Meeting Entertainment Features

TAPPI Special Train

TAPPI specials will cruise through the Northwest, timed to make a grand sight-seeing expedition into and over the American Rockies. From the train windows the first glimpse of mountains will come early in the morning of September 7, at Hysham—to the south of the main line of the Northern Pacific can be seen the Wolf Mountains, buffalo hunting grounds of the Crow Indians. Then, southwest of Billings, rises the Beartooth Range with Silver Run and Granite Peaks climbing above 9,000 feet into the blue. From Reed Point to Mission, Mont., look north from the train—behold the Crazy Mountains—11,178 feet altitude, a bold, jagged stroke on the skyline. On September 7, TAPPI will penetrate the chasm between Absaroka Mountains on the east and Gallatins on the west—the trains cut into the hills from Livingston and run to Gardiner, gateway to Yellowstone!

On September 8, to take up the mountain story again, at Livingston, the train curtains go up at 6:00 A. M. Up and over the Gallatins, into Bozeman. The Madison Range to the southwest of Three Forks, from Sappington to Whitehall the dark Tobacco Roots on the south and north the London Hills, peaks parade dramatically past. Particularly thrilling is the Continental Divide of the main range of the Rockies—over the top! Included in the parade of mountains on September 8 for TAPPI will be the Gravelly Range, Ruby Range, Snowcrest Range, Blue Mountains, the Highlands, Big Belts, Elkhorns, Anaconda Range, Flint Creek Range, Deer Lodge Mountains, Garnet Range, Sapphire Range, Mission Range. So much for Montana's majestic Rockies; now into Idaho through lovely Cabinat Gorge, the Bitter Root Mountains, the Coeur d'Alenes, the Cabinets and the Selkirks—all by daylight. Arrive Spokane 6:30 P. M., where the members will be entertained at a dinner-dance and will then press on to Portland, where they will arrive on the morning of Sunday, September 9.

From this time on the visitors will be in the hands of the local committeemen, who now, under the guidance of Fred Alsop, are planning some of the greatest entertainment features ever devised for a convention of paper makers.

The tentative outline for entertainment is as follows:

On Monday evening there will be the banquet in honor of the president. At this dinner many prominent people in the paper industry will be introduced. It is expected that many distinguished paper makers from foreign countries will be present.

Tuesday will be devoted to the woods trip, during which meals will be served at logging camps in the big timber. This trip will take the entire day, so no program for the evening is being planned in Portland.

Cabaret and Golf

On Wednesday there will be a cabaret and dance, during which many interesting and unique features will be presented. These will be participated in by the members. There will also be many high-class entertainers from local road shows, and an excellent musical program is being arranged.

Thursday will be featured by the golf tournament at the Portland Golf Club. There will be dozens of prizes of considerable value, and the Golf Committee under the chairmanship of Sidney Rasmussen will have things so arranged that nearly every one from the dub to the expert will have an opportunity of collecting prizes. The Portland Golf Club is one of the best in the city and is located in the beautiful Tualatin Valley. It was chosen by the United States Golf Association for the Western championships in 1931.

Following the golf tournament there will be an elaborate dinner-dance, which will conclude the formal program.

Women's Program

Under the direction of Mrs. A. C. Natwick, a splendid program for the women is being arranged. This will include shopping tours, scenic trips through the city, one-day motor trip around the beautiful snow-capped Mount Hood and along the famed Columbia River Highway, where scenery is unsurpassed.

There will be afternoons devoted to golf, theatres, luncheons and the many activities of special appeal to ladies.

Other Activities

In addition to the above there will be other recreational opportunities, such as fishing in world-famous trout streams, surf bathing in the Pacific Ocean, mountain climbing and motor trips.

All of the paper and pulp mills have proclaimed open-house and will welcome visitors during and after the meeting.

For those who wish to make short trips in a hurry there is adequate airplane facilities. Seattle and Tacoma are but an hour from Portland, Vancouver, B. C., two hours; San Francisco, four hours. Excellent highways lead to all parts of the State and to Washington, California and Idaho.

Those who are not acquainted with climatic conditions in Oregon normally expect to find summer weather in September. It is usually cool at night and a light overcoat will be comfortable. The usual dress is all that is required, and in this connection it may be said that all banquets, dances, etc., will be informal.

In September the foliage will have begun to turn to autumnal colors and will probably be the best time in the year to see the West Coast.

Everybody Welcome

Every paper mill in the country should be represented at the TAPPI fall meeting at Portland, Ore. An individual invitation has been sent by President Heritage to a leading executive of every company in the United States and Canada. A similar invitation with the endorsement of President K. E. Terry of the Superintendents Association has been sent to every member of that organization by President Heritage and Secretary Macdonald recently attended the Summer Meeting of the Technical and Woodlands Sections of the Canadian Pulp and Paper Association and extended a hearty invitation to the members of those organizations.

This meeting represents an opportunity of a lifetime. It is well worth the cost and should not be missed. Reservations should be made at once with G. S. Brazeau, Weyerhaeuser Timber Company, 307 N. Michigan Blvd., Chicago, Ill.

H. E. Walker Goes with Champion Fibre Co.

H. E. Walker, who for many years was general manager of the Reading Paper Mills, at Reading, Pa., recently left this concern to go with the Champion Fibre Company, of Canton, N. C., where he will have charge of their Fourdrinier and cylinder production and management.

HEAR SUPPLEMENTAL CODE FOR NEWSPRINT INDUSTRY

(Continued from page 13)

plemental Code, and the brief in respect of certain matters of law which was filed by me on February 10 for the American Newspaper Publishers Association.

With particular reference to the proposal now before you, I am handing you herewith, and ask that it be inserted in the record as a part of my remarks at this point, a copy of the resolution unanimously adopted by the Association at its annual meeting in New York on April 25 last condemning this proposal in its entirety.

I also hand you a copy of a letter addressed to the Deputy Administrator by the Secretary-Manager of the Southern Newspaper Publishers Association opposing this proposal and ask that it be included in the record. There are more than 200 members of the Southern Association. While many of them are members of the American Newspaper Publishers Association, there are others who are not.

There is little difference between this proposition and the one which we discussed on February 1 last. Both seek to create a monopoly of the United States market for the benefit of Canadian and United States manufacturers of newsprint paper. In the former proposal, the control of the monopoly was to be exercised through the Code Authority acting in concert and by agreement with a newly formed Canadian association. The present proposal is virtually for government control of the monopoly, the most vicious of all forms of control, with the United States producers acting in association and in part through the Administrator in concert with the Canadian manufacturers.

This plan for the creation of the so-called Newsprint Planning and Adjustment Board reminds me of a legend which has come down to us from the Greeks. All of you are familiar with the fact that after besieging Troy for a period of more than a decade and with no prospects of success, the Greeks suddenly withdrew one night and left on the shores before the city a large wooden horse. The next morning when the Trojans awoke and went to their defenses, they saw that the enemy had departed but they observed this strange wooden horse, and with shouts of glee, they opened their gates and rushed out, seized it and dragged it into the city, where all day long it was an object of curious gaze by the residents of Troy. The following evening, when the Trojans had gone to bed, the horse suddenly opened up and Menelaus and his little band of valiant Greeks threw open the gates of Troy to their Greek comrades, who had come back during the night, with the result that fire and slaughter were carried throughout the city and the whole object of the Greek expedition accomplished.

To us, this proposal for a Newsprint Planning and Adjustment Board, tied in as it is with the other provisions of this Supplemental Code, is nothing more nor less than a Greek horse.

Let us examine this feature horse for a moment. The recommendation is for a Board of 9 members, 3 from the Newsprint Industry to be nominated by the NRA Industrial Advisory Board; 3 who are or represent publishers to be nominated by the Consumers Advisory Board of the NRA; 1 to represent labor in the newsprint industry; and 1 to represent labor in the newspaper publishing business, these two to be nominated by the NRA Labor Advisory Board.

A nineth member, described as a 'disinterested person' to be known as the Administration Member, who shall act as Chairman of the Board.

No provision is made as to how this disinterested person is to be nominated—whether by the other members of the Board, by the NRA, or someone else.

The Board is authorized to consider:

1. The domestic requirements of the consumers of paper.

2. The ability of the industry to meet those requirements.

3. The importation of paper—including the necessity therefor and the extent thereof.

Pausing for a moment, let me say that the normal requirements of consumers are in excess of 3,000,000 tons per annum, that the domestic manufacturers are wholly unable to supply these requirements—in fact, they are unable to supply even half of the present subnormal demand. There is no question about the necessity for the importation of newsprint paper in order to meet publishers requirements. That question was determined by Congress years ago when it provided for the entry free of duty of newsprint paper because of the absolute inability of the domestic manufacturers to supply the requirements of publishers. There is no occasion, in the light of the action taken by Congress after investigation and findings of fact, for this Board or any other to go into this question but for one purpose—and that purpose clearly is to set up a monopoly, limit the supply, arbitrarily fix prices, and regulate all conditions of marketing and use.

Further analysis of the powers proposed to be given to the Board shows that they are all directed to this purpose—but that in the last analysis the power of the Board is largely advisory and the monopolistic control proposed is to be lodged securely in the NRA.

The American Newspaper Publishers Association wants no agency of the Government to be placed in a position to tell newspaper publishers of this country how much paper they may use in the production of their newspapers, from whom they must buy it and how much they shall pay for it.

This Board cannot be created. I say this advisedly. First, there is no authority in the National Industrial Recovery Act for the Administrator to approve of any plan which would violate the law itself. The law specifically prohibits monopolies and monopolistic practices, and it cannot be denied that the sole purpose of this Supplemental Code is to set up a monopoly and indulge in monopolistic practices. The mere fact that the advocates of the Code are seeking the sanction of an administrative department of the Government does not cure the defect. It cannot cure it.

Further, if it were not for the absolute prohibition in the Recovery Act itself which prevents approval by the National Recovery Administration, the plan would have to be rejected because it is in violation of the provisions of the Sherman Anti-Trust Law as well as the Clayton Act and the Federal Trade Commission Act. The NRA has no jurisdiction over violations of these Acts committed by persons not under its jurisdiction. Even so, it should not encourage or condone violations of those Acts.

A third reason why this plan cannot be approved is that it is in violation of a certain final decree filed on November 26, 1917, in the District Court of the United States for the Southern District of New York, perpetually enjoining each of a number of newsprint manufacturers of the United States and Canada doing business in the United States, "from entering into any combination, agreement, understanding or concert of action with any other corporate defendant or with any other manufacturer of newsprint

paper having for purpose or effect (a) to limit or restrict itself as to the customers to whom it should sell or offer to sell newsprint paper; (b) to limit or restrict itself as to the quality or quantity of newsprint paper it should make or sell; (c) to limit or restrict itself as to the service it should render to its customers or the prices, terms or conditions upon which it should sell or offer to sell newsprint paper."

I hand you a copy of that decree and ask that it be made a part of this record. It is a matter of common knowledge that it not only has never been set aside but it has not been modified, and no plan such as this which is now before you can be approved in the absence of an order of this Court either vacating or modifying this decree. Nor could its approval be justified or sustained were that decree modified.

And who would seek its modification? The manufacturers, all of whom have ignored its prohibitions and violated its mandates? They would be repulsed at the very threshold of the Court. They would be instantly recognized as coming into a court of equity with hands not only soiled but stained and steeped in contempt of its orders.

The NRA could not seek its modification without completely falsifying its position and its declared purposes because the Act which created it and under which it functions prohibits monopolies and monopolistic practices—the very things this decree forever prohibits.

The manufacturers of this Supplemental Code have already violated the terms of this decree by entering into the agreement which they made following the now notorious meeting held under the auspices of the NRA on October 24, 1933, here in the city of Washington. By the terms of that agreement they declared an armistice which ended all competition in this country, but not elsewhere, in the news print industry in the matter of price. They have operated continuously and persistently since that date in violation of this decree. It is a matter of common knowledge that there has been no price competition between manufacturers since October 24, 1933. Further, they now seek Government endorsement of their illegal acts through approval of this Supplemental Code. It is pertinent to point out that, under Article II, Section 8, of the Code now under discussion, a bona fide contract is defined as one entered into prior to October 24, 1933.

The picture is clear. In 1917 these manufacturers were forever barred by a decree of a Federal Court from entering into any combination, agreement, understanding or concert of action for the purpose among others of restricting the prices, terms or conditions upon which they sell or offer to sell news print paper in violation of this decree. On October 24, 1933, they met in Washington and entered into such an agreement, and since that date they have acted in concert in carrying out its terms.

Not only have the manufacturers violated the decree referred to but they have engaged in a new series of violations of the law.

I submit that the time has come when the NRA, instead of listening further to their pleas to cloak their illegal acts with administrative sanction, should refer their case to the Attorney General for appropriate action.

The purpose of this Supplemental Code is twofold: First, it seeks to set up a monopoly in the manufacture and sale of news print paper for use in the United States only; and, second, it seeks to obtain for that monopoly absolute power over the price to be extracted from consumers of news print paper in the United States but not elsewhere. I remarked at the hearing on February 1 last that the advocates of monopoly then hoped that the NRA would become their Godparent and police their customers for them. This they now openly seek.

The monopoly is planned to the last detail. First, all United States manufacturers are to be made subject to the Code.

Second, all Canadian and Newfoundland manufacturers are to be brought into an association with plenary power over the individual members thereof.

Third, the United States manufacturers and the Canadian manufacturers, by the terms of an agreement which is made a part of this Supplemental Code, agree to act in concert in the matter of the marketing and sale of news print paper in the United States market.

Fourth, the price of such paper is to be fixed by the Administrator.

Fifth, a deviation from this price is made a violation of the Code, and, in addition, deviations are to be penalized by special penalties over which the Canadian and domestic associations have jurisdiction.

Sixth, complete provision is made to control the resale of news print paper.

Seventh, provision is made to control all jobbers, dealers and agents selling news print paper.

Eighth, provision is made that the parties to the agreement cannot sell their plants to persons who do not agree in advance to participate in the plan.

Ninth, provision is made for the pooling of interests and machinery set up for pro ration of tonnage and complete control of imports.

Tenth, the plan is limited only to the United States market, leaving both the Canadian and United States manufacturers free to act independently in other markets of the world.

Eleventh, the News Print Planningg and Adjustment Board, but really the Administrator, is given the power to fix the price or change the price of news print paper, to fix the amount or change the amount consumed in the United States, and this, in fact, means to control completely the press of the United States by such an arrangement.

The plan as I say is limited to the United States. Yet in the last few weeks one of its principal advocates—the International Paper Company—has sold 100,000 tons of news print paper, to be delivered in England in 1935 at a price of not more than $30 per ton net.

If this company, which last year sold approximately 700,000 tons in the United States, can enter into such a contract with its English customers, there is no occasion for the NRA to take any action for its benefit here. Particularly is this so when one realizes that 80 per cent of the news print it sold in this country was manufactured by it in Canada.

I could mention other sales, to other countries, at prices far below the present United States price.

No conclusion can be reached other than that the News Print Industry of the United States and Canada still seeks its original objective of a monopoly in the United States market, with power vested in the monopoly to fix the price of news print paper and to control the quantity of news print paper consumed in this country, as well as conditions relating thereto, including the character of the product.

Since the first of the year there has been a substantial increase in demand for news print paper. In fact, the demand at the present time is so great that every efficient American mill could operate at capacity were it not for the agreement of October 24, 1933, which restrains them.

We have evidence that United States mills today are rejecting orders for news print paper on the ground that their acceptance would violate the agreement of October 24, which agreement in turn not only is in violation of

the decree heretofore mentioned but of the Sherman Act itself.

The resolution of the American Newspaper Publishers Association indicates clearly that it will not become a party to this plan, even though it be approved by the NRA. Further, the resolution instructs the Board of Directors and the News Print Committee of the Association to take every proper step to prevent a monopoly of the United States news print market by any combination of producers, domestic or domestic and foreign, the setting up of any price-fixing scheme by collusion or otherwise, or the approval by the NRA of any plan which includes monopoly, price fixing, proration of tonnage, parceling of consumers, restriction of importations or curtailment of use of news print paper. This Code makes provision for every one of these schemes to which the Association has voiced its objection and as to which it has given its instructions to its directors as well as the proper committee. Should there be any publishers who approve of this plan, the plan itself cannot be justified on the ground of their approval.

Eliminating for the moment, for the purposes of argument, the question of monopoly, the plan ostensibly is for cooperation between the manufacturers, the consumers and labor. The Association which I represent embraces within its membership the largest consumers of news print paper in the United States. In fact, the membership of the Association consumes upwards of 80 per cent of all of the news print paper used in this country. Manifestly, no member of the proposed board could be characterized as truly representative of the consuming interest where those who use 80 per cent of the product are opposed to the plan.

There is another weakness to this proposal entirely separate and apart from its legal defects and that is the proposal to include representatives of labor on the board —one from the news print manufacturers and one from the newspapers. Naturally, the representative of labor coming from the news print mills would approve higher prices for the product because higher prices for that product undoubtedly would mean a lever which could be used to increase wages for laborers working in the news print mills. On the other hand, there would be embarrassment on the part of both publishers and the labor representative from the newspaper side, because the latter would realize that every additional dollar spent for news print paper would mean just so much less for labor employed by newspapers, and with labor negotiations continually in process, neither publishers nor labor should be compelled to face such a situation.

In previous appearances before the NRA I have spoken of the relative importance of the two groups engaged in this controversy. The news print manufacturing business in the United States is relatively small, and one might say almost an unimportant unit in the nation's industrial structure. In 1933, the domestic manufacturers produced, by their own admission, less than 35 per cent of the amount of news print paper consumed in the United States. Were their mills operated to capacity, they could not produce more than 45 per cent of the present subnormal demand. This Supplemental Code seeks to prevent the establishment of any mills or the increasing of capacity. Within the last six months there has been a substantial increase in the consumption of news print paper, but by reason of the limitation placed upon the domestic mills by the owners thereof, in accordance with the illegal agreement of October 24, 1933, they have not participated in this increased business to an equal extent with the Canadian manufacturers. Even so, the percentage of production, as compared with capacity of the mills of the United States, is today much higher than the same percentage in Canada.

Canada has such a tremendous capacity it could supply all of the needs of the United States, all of its own needs, and still have a great surplus left for sale to other nations. A few moments ago I referred to the fact that the International Paper Company recently had entered into a contract for the delivery of 100,000 tons in England during 1935 at a net price far lower than the present price in the United States. Under the terms of the October 24, 1933, agreement no contracts have been entered into for future deliveries in this country. Under this proposal it would be a violation of the Code and of the concert of action between Canadian and United States manufacturers to make such a contract before November 1. In order to keep some of the associated Canadian mills in line under that agreement I am told that the International has voluntarily turned over to them orders for approximately 50,000 tons of news print paper for delivery in the United States this year.

This of itself is a proration of tonnage and a parceling of consumers in defiance of the decree of the United States Court previously referred to.

There are only about 6,500 employes in the news print mills of this country as compared with 500,000 employes of the daily newspapers. The wage scales in the news print mills are much lower than those in the daily newspapers, which are among the highest of any business or industry in the world. Even were the United States mills capable of supplying the entire amount of news print paper needed by publishers in this country, you would still be confronted by the question as to whether 500,000 employes should be jeopardized for the benefit of 6,000 employes and a few manufacturers. But such is not the case. For every dollar which a scheme like this would turn into the pockets of the domestic manufacturers, but a few cents would reach the pockets of the working men in the news print mills.

On the other hand, for every dollar turned over to the domestic manufacturers, at least two dollars would be paid to Canadian manufacturers. I know of no provision in the National Industrial Recovery Act which either authorizes or justifies the extension of the so-called benefits of that act to foreign manufacturers.

In conclusion, let me say that the position of the American Newspaper Publishers Association today is exactly what it was a year ago and twenty years ago. It believes in an open, free and competitive market for news print paper. It is opposed to a monopoly in the United States with all of the evils of price fixing and control of consumption as well as consumers. It believes that this Supplemental Code is even more offensive than any of the other suggestions or proposals advanced by the manufacturers to date, and in accordance with the action taken at its annual convention, it is here expressing its objections to this Code and reaffirming that action with the statement that it will take every proper step to carry out the instructions of its membership.

Bainbridge Colby Refers to Old Case

Bainbridge Colby, former Secretary of State, followed Mr. Hanson. He stated that as a special attorney for the Department of Justice he had presented a case against news print manufacturers before a grand jury in New York, which returned an indictment charging violation of the anti-trust laws. The case against them was complete, he said; and when it came on for hearing no defense was offered. It was a sweeping decree, he stated, prohibiting

every attempt to continue practices which had been followed. That decree, Mr. Colby said, was still in force and no appeal ever had been taken from it. Monopoly, or the anticipation of it, he declared, "was the foundation principle" of the formation of the news print paper association.

Discussing the freedom of the press, Mr. Colby said it meant "something more than the right to free expression of opinion." It meant, he declared, "the freedom of production, the freedom of publishing"; and "that freedom could not be more menaced than by handing over to greedy manufacturers a monopoly upon the basic product of the publishing business."

"The great newspaper publishing business," he asserted, would "loyally cooperate with every requirement to effectuate the purpose of the NRA"; but it would "not submit to a violation of its constitutional right or be guilty of disregard of its duty as the custodian of the great American principle of liberty."

Floyd Chalfant, of the Waynesboro Record-Herald, Waynesboro, Pa., and representing, he said, 278 members of the Pennsylvania Newspaper Publishers Association, gave entire accord to the statements of Mr. Hanson and Mr. Colby and asked permission to file a brief further defining the position of those whom he represented.

Paul Patterson Says Purpose Is to Fix Prices

Paul Patterson, speaking for the Scripps-Howard Newspaper organization, representing 24 daily newspapers, said the purpose behind the recommendations of the Code Authority was "to fix prices so that the producers may sell to foreigners at a lower price, as they have done, and to American publishers at a higher price."

Deputy Administrator Tulley asked Mr. Patterson if he considered $50 a ton a high price.

"It is," replied Mr. Patterson, "when the same manufacturers are selling to English publishers for $30 a ton, and in some instances, as we have found, to South American users of news print for as low as $20 a ton."

Mr. Patterson contended that manufacturers did not want a code unless it contained the zone provision, which, they believed, would equalize the cost of news print in the United States.

"In our opinion, "continued Mr. Patterson, "this Supplemental Code violates the Sherman anti-trust law, the Clayton Act and the Federal Trade Commission Act. We do not believe that the NIRA contains any authority to the NRA to approve a code for the benefit, in any respect, of a foreign producer of news print, or any other foreign manufacturer for that matter. Also, we intend to take every proper step to protect our rights in this matter."

Mr. Patterson filed a statement on behalf of the Scripps-Howard league of newspapers. Robert H. Prichard, vice president of the National Editorial Association, comprising 1,200 weeklies and several hundred small dailies, also filed a brief in opposition to the Supplementary Code proposals.

L. A. Rossman, Grand Rapids, Minn., publisher of the Herald-Review of that city, appeared in support of the Supplementary Code and spoke of the handicaps encountered in the development of the news print industry in the United States. He pointed out that the growth of the present-day newspaper was, in part, due to the production of cheap news print. The newspaper of the Civil War days, he said, was printed on paper made from rags. The first newspaper printed entirely on paper made from wood pulp was produced in 1890. The attitude of publishers, he asserted, had always been one of attack on the paper-making business. He declared that the fall in the price of news print had not been reflected in a reduction of advertising rates, and that this saving enjoyed by publishers had not been passed on to their consumers.

Taking up Mr. Colby's issue of the freedom of the press, Mr. Rossman said there was little connection between the price of news print and the freedom of the press. There was "no question raised about the freedom of the press when paper was selling at $80 a ton, or when it was selling at $60 a ton," he charged. Mr. Rossman further pointed out that some 41,000 farmers of the country were producers of pulpwood, most of them in Maine. He said that unless there was action to protect producers in this country with a price which would enable them to develop the industry, the time would come when publishers would be required to pay far more than they do now for news print.

Matthew J. Burns Represents Brotherhood

Matthew J. Burns, representing the International Brotherhood of Paper Makers, supported the proposals. He deplored the removal of the duty on news print in 1910, and said it had prevented the development of the industry in the United States. The publishers of the country were the ones, he said, who had turned the manufacture of news print over to manufacturers in Canada.

J. W. Taylor, of the International Brotherhood of Pulp and Sulphite Paper Makers, also supported the proposals. He spoke especially on behalf of the 8,000 men employed in the industry in Maine. He said they had been well treated by the ten producing plants in the state. They had received increased wages, and the employers had cared for men out of employment. The question with the men, he declared, was how long they would be able to keep their jobs.

Thomas McGuire Speaks for Consumers

Thomas McGuire, of the NRA Consumers' Advisory Board, concluded the hearing with a presentation of the plan worked out by members of that board. He said that while the board did not agree price fixing was the appropriate way to deal with this industry's problems, it did feel the industry had made a step forward with the establishment of a planning board on which there was provision for equal representation of consumers and producers.

Mr. McGuire suggested the revision of relevant parts of the proposal along the following lines:

The board to make such investigations of conditions existing in the industry as might be deemed necessary from time to time;

That it consider domestic requirements and the ability of the industry to meet same, and likewise the subject of importations; that it consider the promotion of purchasing power on the part of employes and the alleviation of unemployment.

In such matters, he stated, the board should be clothed with authority to examine all conditions as they relate to the industry with a view of rehabilitating it, having due regard to the economic factors involved, and also to conservation of natural resources.

He proposed that the board be authorized to determine the existence due to destructive price cutting, or price levels, or other acute conditions endangering the maintenance of the code. When the board so determined, he suggested, it should announce the minimum price of paper. When the emergency no longer existed, the board should so declare and announce, and any minimum base price then in effect would become void.

The Administrator, according to the suggestion, would have the final power to declare at an end any emergency determined by the board; and all acts of the board would

be subject to his review, suspension, modifications or cancellation.

The plan of the Consumers Board, as presented, further recommended that the proposed provisions such as "Sales and Trade Practices," "Price Policies," "Standard Uniform Contracts," "Base Point Prices," "Uniform Discounts," "Selling Discounts," "International Agreements," "Uniform Industry Agreements," and all other items contained in Schedules "A" and "B" of the proposal today, "be disapproved by the Administrator, but that these and any other trade practice recommendations be one of the duties of the 'Planning and Adjustment Board'."

The Consumers' Advisory Board representative also asked that, if price fixing be undertaken, "it be guided by cost figures for the ten lowest cost Canadian mills and the ten lowest cost American mills, rather than by a larger selection of figures more likely to represent the over-equipment of the industry."

Paper and Pulp Code Modification Proposal

WASHINGTON, D. C., August 8, 1934.—The Code Authority of the paper and pulp industry has made application to the National Recovery Administration for a modification of its code of fair competition to enable it to prepare a budget of administrative expenses and a basis of contribution to same by members of the industry.

Application also was made by the same Code Authority for a termination of the exemption under Administrative Order X-36, of May 26, 1934, whereby members of its industry whose principal line of business is embraced in a trade or industry other than the code for the paper and pulp industry were exempted from obligation to contribute to the expense of code administration of that industry.

Notice was given that any criticism of, objections to, or suggestions concerning this modification or the application for exemption must be submitted to Deputy Administrator David H. Tulley, prior to August 14.

Details of the application are as follows:

PROPOSED MODIFICATION TO THE CODE OF FAIR COMPETITION FOR THE PAPER AND PULP INDUSTRY

Schedule A

The Paper Industry Authority, in accordance with the provisions of Executive Order No. 6678, and pursuant to the provisions of Section 5 of Article IX, of the Code of Fair Competition for the Paper and Pulp Industry, hereby recommends to the Administrator, the following Amendments to said Code:

Amendments to the Code of Fair Competition for the Paper and Pulp Industry, Approved Code No. 120, Registry No. 405-1-04, approved November 17, 1933, Section 4 of Article II, shall be deleted in its entirety.

There shall be added to Article II, the following Sections, numbered respectively 4 and 5:

4. Subject to such Rules and Regulations as may be issued by the Administrator, the Paper Industry Authority and the Executive Authority of each Division shall severally have the following powers:

(a) To incur such reasonable obligations as are necessary and proper for efficient administration and to meet such obligations out of any funds raised by them for that purpose.

(b) To submit to the Administrator, for his approval, subject to such notice and opportunity to be heard as he may deem necessary—

(1) An itemized Budget of its estimated expense of administration and

(2) An equitable basis upon which the funds necessary to support such Budget shall be contributed by all Members of the Industry entitled to the benefits of such administration.

5. Unless and until the Paper Industry Authority shall elect to

(a) Submit its budget and an equitable basis for contribution under Subdivision (b) of the foregoing section, and the same shall have been approved by the Administrator, the expenses of administering this Code shall be apportioned among the various Divisions in accordance with the formula already adopted by the Paper Industry Authority, or such other formula as may be adopted by the Paper Industry Authority.

(b) When the Paper Industry Authority shall elect to submit its budget and basis of collection to the Administrator for approval under Subdivision (b) of the preceding section and the same shall have been approved by the Administrator, the Paper Industry Authority shall assess and collect from the several divisions their respective shares of such expenses as determined upon such approved basis.

(c) In either event, the budget of the Executive Authority of each Division shall include as an item of expense, the share or contribution payable to the Paper Industry Authority as hereinabove provided.

(d) When the Paper Industry Authority or any Executive Authority shall have elected to submit its budget and basis of collection to the Administrator for approval under Subdivision (b) of the preceding section, and the same shall have been approved by the Administrator, the Executive Authority of each Division concerned shall collect the share or contribution payable by each member of such Division either to the Paper Industry Authority or both, as the case may be, as determined on such approved basis and to that end and if necessary such Executive Authority may sue therefor in its own name.

(e) Each member of the Industry shall be liable for his or its equitable contribution to the expense of administration determined as hereinabove provided. Only members of the industry complying with the Code and making such contribution shall be entitled to participate in the selection of the members of the Paper Industry Authority and/or the divisional Executive Authorities or to receive the benefits of voluntary activities, or to make use of any N.R.A. insignia.

Schedule B

REQUEST FOR MODIFICATION OF EXECUTIVE ORDER NO. X-36, SUBMITTED BY THE PAPER AND PULP INDUSTRY

The Paper Industry Authority being the duly constituted Code Authority for the Paper and Pulp Industry on its own behalf and on behalf of the twenty-four (24) Divisional Code Authorities subordinate to it, hereby requests a modification of Paragraph 3 of Administrative Order No. X-36, dated May 26, 1934, to the following extent and for the following reasons:

Modification Requested

Each Member of the Paper and Pulp Industry is obligated to contribute to the expenses of the administration of the Paper and Pulp Code and to the expenses of administration of each Code subordinate thereto which concerns each Division of the Paper and Pulp Industry of which he is a Member.

Reasons

The Paper and Pulp Industry is very complex. It makes

a variety of products, a number of which (approximately 10,000) is undoubtedly far in excess of any other industry. With such diversity of products, each with its own peculiar problems, it is utterly impracticable to have the administration of fair competition for the Industry entirely centralized.

For convenience and practicability, the Paper and Pulp Industry presented a General Code for the whole Industry and twenty-four (24) subordinate Codes covering Divisions of the Industry each of which includes comparable and competitive products. This General Code, together with its twenty-four (24) Subsidiary Codes, has been approved and the Industry is operating under them.

The great majority of the Members of the Paper and Pulp Industry are engaged in the manufacture of products falling within two or more Divisions (in some instances as many as fourteen (14) or more). Production by any one Member may, and frequently does, fluctuate from month to month, so that in one period the preponderance of his production may be in one Division and in the next period in another.

Members may be very substantial producers in one Division, even the largest, and still have the preponderance of their business in another Division.

The financing of the Code activities of the Paper and Pulp Industry is accomplished by contributions by Members of each Division in such proportions to their production, dollar sales, etc., in that Division as is determined by each Division. Each Division, as such, contributes to the Paper Industry Authority in proportion to its percentage of the value of the individual Members to the Paper Industry Authority.

If the Members need only contribute to the support of the Division in which they are principally interested, or only to the Paper Industry Authority, or perchance only to another industry such as the Newsprint and Paperboard Industries, there would be no continuity of support for the Paper Industry Authority or the Divisional Code Authorities, and the anomalous situation might even arise where one Division would be entirely without funds because all of its Members were chiefly engaged in some other Division. Even if this extreme were not reached, it is certain that the largest producer in some Divisions would be exempt because the preponderance of his tonnage was in another Division.

Obviously, Administrative Order No. X-36 as it applies to the Paper and Pulp Industry, should be modified in view of the peculiar situation in this Industry and the arrangement of the General Code and subordinate Codes which has been worked out to meet this situation. Failure to allow this exemption probably can only result in an impossible chaotic situation which will seriously impair functioning under these Codes. Your approval of this modification is, therefore, earnestly requested. Enclosed herewith is a certified copy of a resolution of the Paper Industry Authority authorizing this request.

Mid-States Paper House Opens in St. Louis

ST. LOUIS, Mo., August 6, 1924.—Frank J. Smith, who for quite a number of years has been St. Louis manager for the Brown Company of Portland, Me., recently resigned to start a wrapping paper jobbing business here. The company will be known as the Mid-States Paper House and a warehouse located on a railroad siding has been leased at 3834 Market street. It is the intention of the new company to carry a full line of wrapping paper, bags, towels, tissues and specialties.

Indianapolis Demand Marks Time

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., August 6, 1934.— Some abatement early last week in torrid temperatures reacted favorably on the local paper demand, but this was but temporary and the entire jobbing end of the business is marking time and waiting for the fall season. In the production end, there appears to be more activity. Makers of paper boxes, converters of all descriptions, container manufacturers and others are working. Production schedules are not as large as they were in the spring, but they are far and away larger than have been the rule these several years. Virtually all the Indiana factories are expecting fall business to show a considerably improvement. There is some disposition to build up fair-sized warehouse stocks during this month, even though orders in some instances are not so heavy.

Much is expected of the fine paper demand when fall begins. There are many proposed advertising campaigns being figured on and it is thought most of these will develop. Printers report more prospects than they have had in months but difficulties will be seen in closing them until nearer the change in seasons.

Demand for summer specialties continue heavy. Retailers in this state underestimated both the weather and buying power of the public early in the season. Stocks in their hands were far short of requirements and the wholesalers have been hard put to it in some instances to keep abreast of orders.

Jobbers of newsprint are enthusiastic concerning summer sales and the prospects for fall. If lineage maintains the rate of increase it has during the last year, there will be no cause for discontent on the part of the newsprint people. An active demand for wrapping paper and bags still is evident. Cleaners of the state have purchased more bags this year than for several past. Hot weather doubtless has caused some of this business. Prices are firm in coarse papers, in fact in the entire range.

Little change is seen in the paper stock field. There is a strong undertone, but mill demand remains restricted.

Boston Paper Market Fairly Active

BOSTON, Mass., August 6, 1934.—The wholesale paper market in and around the Hub continued fairly active during the week, keeping up well for the summer season. Jobbers are said to be buying rather conservatively, however, as there is a feeling on the part of some, at least, that prices may change. A moderate volume of business was transacted in bonds and ledgers, with writings and book papers coming in for their share. Wrapping paper is reported as moving in moderate volume, with "something doing all the time." Box board, as a whole, is rather quiet, although a certain amount of material is being sold.

In paper stock, the demand for old newspapers and corrugated boxes continued, with more call for old newspapers than for corrugated boxes the last week. The price of old newspapers advanced to .35 @ .40 from a former quotation of .30 @ .35. Other grades were generally quiet.

Roach Adds Caslon Mimeograph Bond Line

The Roach Paper Company, Little Rock, Ark., has recently added Caslon Mimeograph Bond to their line. A complete inventory in white and colors in all weights will be stocked. The Roach Paper Company now distributes Caslon Bond and Caslon Ledger.

News of the Philadelphia Paper Trade

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., August 6, 1934.—Association activity has been more or less suspended this week, but plans are being made for early fall meetings. The Paper and Cordage Association, Inc., has recently acquired the following members: Charles Beck Paper Company, 401 North Broad street, represented by Leon Beck; Dill & Collins, Inc., Richmond and Tioga streets, represented by W. R. Ingersoll. The membership to date totals seventy—the Association's goal being seventy-five. George K. Hooper, president of the association, is highly gratified with the fact that all those in the membership have voluntarily renewed for the coming year. Meetings will be resumed on the third Friday in September at the Hotel Adelphia.

William F. Mohan, vice-president and sales manager of Scott Paper Company, in company with Mrs. Mohan and their attractive daughter, Marilyn, are registered at Hotel Sagamore, Lake George, N. Y.

Norbert A. Considine, president of the Paper House of Pennsylvania, is due to arrive this Thursday on the SS. *Manhattan*, sailing from Southampton.

George K. Hooper, president of the Hooper Paper and Twine Company, and of the Paper and Cordage Association, Inc., has leased a cottage at Avalon, N. Y., for the month of August, where, with Mrs. Hooper and their charming daughter, he will spend the last two weeks of the month.

Philadelphia Paper Market Conditions

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., August 6, 1934.—August finds a curious mixture of factors in the paper trade situation and outlook. As far as day-to-day business is concerned the volume has been rather well maintained. As far as forward business or future commitments are concerned the events of the summer have served only to intensify the uncertainty.

It is the consensus of opinion that by the latter part of this month the trade here should begin to feel the impetus of necessary fall buying, but there is nothing to indicate yet whether this movement will assume normal proportions or remain in the grip of the uncertainty that has intensified the seasonal summer dullness.

There is virtually little or no change in the waste paper situation, and notwithstanding the valiant efforts of most box board manufacturers to sustain the market on at least prevailing levels, there is "sharp-shooting" on the part of some board mills to get waste paper at even cheaper prices.

Association Activities in Boston

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., August 6, 1934.—The Price Reporting Plan on fine papers became operative today. Notices were sent out from the local office of the Code Authority on Friday. A luncheon meeting of the Fine Paper Division of the New England Paper Merchants Association was held at the Chamber of Commerce Tuesday. President F. Bendel Tracy presided during the discussion on governmental agency inquiries, turning the meeting over to Vice-president William N. Stetson, Jr., for the discussions in regard to the application of the envelope code and a new method of handling the large quantity of inquiries on blotting paper. A meeting of the Wrapping Paper Division of the New England Paper Merchants Association is to be held Thursday at the Chamber of Commerce for an informal discussion.

Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., August 6, 1934.—Ernest S. Reid, 80 Federal street, has been appointed New England sales representative of the Orchard Paper Company, St. Louis, converters of paper specialties. This concern makes individual advertising wrappers and a great many hand-made bags, such as furniture covers, casket coverings, and some thirty lines of box coverings.

Floyd Blackman, secretary of D. F. Munroe Company, has gone to his summer residence, Hilltop, at Chichester, N. H., accompanied by his family, for two weeks.

William E. McNaught, president of Rutter & McNaught Inc., accompanied by his family, is at Silver Beach, Cape Cod, for two weeks' vacation.

J. Harry Ellis, merchandising manager of wrapping paper for Carter Rice & Co., Corp., left today for his summer residence at Harwichport, Mass.

Edward H. Sussenguth, salesman for the American Writing Paper Company, with headquarters at the New England office, this city, is enjoying a two weeks' vacation.

James C. Murray, salesman for Rutter & McNaught, Inc., who made a name for himself some years ago as a crack cricketer has taken part in a number of games this summer.

Among those who called on the trade last week were General Sales Manager Talbot and Mr. Simons, of the A. M. Collins Manufacturing Company, Mr. MacDoughall, for many years with the American Writing Paper Company, now with the International Paper Company, and Mr. Wilkinson, representing the Kent Paper Company, converters of the Eagle-A Announcement lines, made by the American Writing Paper Company.

American Writing Bondholders Protective Committee Formed

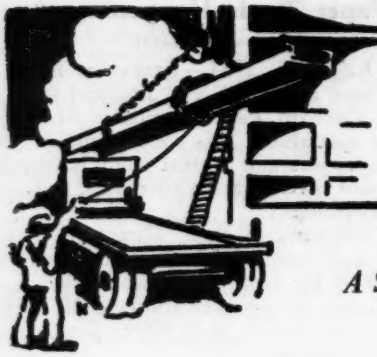
A protective committee to represent the interests of hodlers of American Writing Paper Company first mortgage 6s, 1947, in connection with the proposed reorganization under Section 77B of the Bankruptcy Act, has been formed. D. Samuel Gottesman, president of Gottesman & Co., Inc., and of the Central National Corporation, is chairman.

Other members of the committee are Elbert A. Harvey, of Boston; George E. Warren, vice-president the Chase National Bank, and Oliver Wolcott, vice-president Old Colony Trust Company. Edward A. McQuade, 22 East 40th street, New York is secretary, and Cook, Nathan & Lehman, counsel.

There are issued and outstanding $5,176,000 principal amount of these bonds, $22,500 of which are held in the company's treasury. Deposit of the bonds will not be invited until after the effective date of the registration statement to be filed by the committee in compliance with the Securities Act of 1933, but holders are requested to furnish the secretary with their names, addresses and a statement of the amount of their holdings in order that the committee may communicate with them.

Bennington Wax Paper Opens New Office

John Adrian has been appointed manager of the new offices established by the Bennington Wax Paper Company and its subsidiary, Ben Mont Fancy Papers, Inc., in Suite 810, 475 Fifth avenue, New York. Executive and display rooms will be maintained for the better service of chain store and other customers.



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Niagara, Wis.—The Kimberly-Clark Corporation, Neenah, Wis., has plans for alterations and improvements in mill at Niagara, including extensions in ground wood department. Estimate of cost has not been announced. It is proposed to begin work at early date by day labor.

Jersey City, N. J.—The Gotham Card and Paper Company, 41 Oakland avenue, has concluded negotiations for purchase of local three-story factory of the American Lamp Company at 16 Hopkins place, and will occupy at early date for new plant. Expansion will be carried out at new location. The lamp company will soon vacate structure, removing to another building in the city.

Indianapolis, Ind.—The Indiana Wax Products, Inc., has been chartered with capital of 1500 shares of stock, no par value, to manufacture waxed papers and kindred processed paper stocks, headed by Robert F. Jeffrey and William F. Wiggins, 211 West Georgia street. As recently reported in these columns, new company has leased space in building at 717-19 Fulton street, and will occupy at once for new plant.

Brockton, Mass.—M. B. Claff & Sons, manufacturers of paper boxes and containers, are demolishing the former Hub Gore factory on their property, and will use the site for a new one-story building for company motor trucks and automobiles, with storage and repair facilities. New structure is reported to cost close to $25,000, with equipment.

New York, N. Y.—The Paragon Food Dish Company, Inc., recently organized with capital of $100,000, plans operation of local plant for the manufacture of paper dishes and kindred paper and pulp products. Incorporators of new company include M. E. Grim, 145 Richmond Valley road, Tottenville, S. I., and Charles B. McLaughlin, 523 Seventy-ninth street, Brooklyn, N. Y.

Los Angeles, Cal.—The Angelus Paper Box Company, 755 North Broadway, manufacturer of paper boxes and containers, has plans for new one-story addition to power house, with installation of additional equipment. It is proposed to proceed with superstructure at early date. Edward C. Taylor and Ellis W. Taylor, 803 West Third street, are associated architects.

New York, N. Y.—S. Rappaport, Inc., 508 West 26th street, manufacturer of paper boxes and containers, has leased space in building at 516-22 West Thirty-fourth street, totaling about 20,000 square feet floor area, and will occupy for new plant. Increased operations will be carried out at new location. It is understood that present plant will be removed to the new address.

Brooklyn, N. Y.—The Oneida Paper Products, Inc., 882 Third avenue, manufacturer of paper goods, has arranged for a merger with an allied interest, known as the O. P. P. Holding Corporation, under the first noted name.

Marcus Hook, Pa.—The Viscose Company of America, Inc., manufacturer of cellulose rayon products, is advancing operations at local mill, giving employment to additional workers. The plant is now running at about 50 per cent capacity, giving employment to 3100 persons, and it is expected that production will be stepped-up to normal within a month, with a working quota of close to 4000 operatives.

Fort Madison, Iowa—The Hinde & Dauch Paper Company has concluded arrangements with the Mississippi River Power Company for power service at its local mill, carrying out an electrification program. The power company will soon begin construction of a new transmission line to the plant.

Brooklyn, N. Y.—The Federal Paper Company, 79 Boerum street, has arranged for lease of building at 520-26 Park avenue, corner Walworth street, and will occupy for new storage and distributing plant. Alterations and improvements will be made in structure at early date. It is expected to have the building ready for service in September. Present plant of company will be removed to new location.

New York, N. Y.—H. & J. Shapiro, Inc., 40-46 West 25th street, paper products, have leased additional space in building noted and will occupy for expansion. Immediate possession will be taken.

Plattsburg, N. Y.—The Berst-Forster-Dixfield Company, 420 Lexington avenue, New York, N. Y., operating the Standard Pulp Products Company, Inc., Plattsburg, has awarded contract to the American Bridge Company, 71 Broadway, New York, through the James Leck Company, 211 South Eleventh street, Minneapolis, Minn., general contractor, for structural steel framing for two new additions at Plattsburg plant, recently referred to in these columns. Superstructure will be placed under way at early date; the new units will be each one-story and basement, 100 x 135 feet, and 100 x 100 feet, respectively, the first to be used for general manufacture, and last noted building for storage and distributing service. Expansion is reported to cost about $125,000, with equipment. Homan F. Hallock, Oswego, N. Y., is architect and engineer.

Hantsport, N. S.—The Minas Basin Pulp & Paper Mills, Ltd., Windsor, N. S., have approved plans for construction of a new hydroelectric power plant on the St. Croix River, about 12 miles from local pulp mill, for service at the plant. The new station will have an initial capacity of about 4200 horsepower. Engineering and construction will be carried out under direction of the Power Corporation of Canada, Ltd., 355 St. James street, West Montreal, Que.

New York, N. Y.—The Gilbraltar Products Corporation has been incorporated with capital of 750 shares of stock, no par value, to deal in paper products of various kinds. New company is represented by Howard Reid, 63 Wall street, New York.

LOCKWOOD'S DIRECTORY

OF THE PAPER AND ALLIED TRADES

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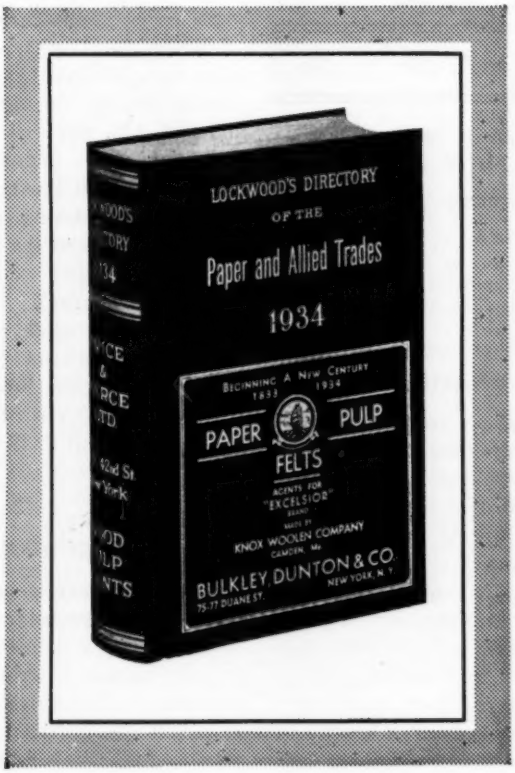

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COMING EVENTS

Technical Association of the Pulp and Paper Industry, Fall meeting. Headquarters Multnomah Hotel, Portland, Ore., September 10-13, 1934.

Paper and Pulp Section, National Safety Council, annual convention, Hotel Statler, Cleveland, Ohio, October 1-5, 1934.

FOREIGN PAPER TRADE

Exports of paper and paper products from the United States during May declined slightly compared with the preceding month, but at the same time show an increase in aggregate value of nearly one-third compared with the corresponding month in 1933, according to the Forest Products Division of the Department of Commerce. The decline in the May exports compared with April was largely due to the heavy decrease in shipments of news print, wrapping paper, and over-issue newspapers. Exports of writing paper also fell off 9 per cent, but a number of other fine papers and paper specialties were larger than in the preceding month. Decreases are noticeable in all items in the board group, with the exception of box boards, which increased four-fold.

A comparison of exports for the five-month period ended May 31 shows an increase of more than one-third in both quantity and value for the 1934 shipments. News print exports have been exceptionally heavy so far, amounting to 23,287,203 pounds as against 8,810,891 pounds during the first five months of 1933. Exports of book and surface-coated papers declined 3 per cent. Cover paper shipments, however, were 30 per cent higher than last year, writing papers and bristols 36 per cent, wrappings, exclusive of greaseproof and waterproof, 46 per cent, tissue papers 48 per cent and over-issue newspapers 38 per cent. Shipments in the board group, including building paper and boards, have also been better this year than last. In the converted products field, exports of envelopes and paper boxes decreased by approximately 10 per cent, but these losses were more than offset by increases in such items as paper bags, toilet paper, paper towels and napkins, papeteries, filing folders, and wall paper. Total exports for the five-month period were valued at $7,525,751, an increase of $2,114,858 over the corresponding five months in 1933.

Imports of paper and paper products during May show a slight increase over April, owing largely to an increase of 4 per cent in receipts of standard news print, which make up the bulk of the paper importations. The average value per ton of news print was also slightly higher in May than in April. Imports of other classes of paper and board show a slight decrease in aggregate value, notwithstanding that receipts of kraft wrapping advanced by 28 per cent and pulp boards in rolls by 17 per cent. Total paper importations during May were valued at $7,935,237, of which $7,117,827 represented 181,282 tons of news print and $817,410 other classes of paper and boards. Similar imports during April were valued at $6,729,921 and $837,424, respectively.

United States imports of kraft pulp and unbleached sulphite pulp, following the decline in April, were perceptibly larger during May, the former attaining a figure of 36,217 tons and the latter of 45,238 tons. Receipts of mechanical ground wood and of pulpwood also show a substantial increase. Bleached sulphite imports were somewhat less, while rags and other waste declined by 18 per cent. Imports of paper base stocks reached a total value of $5,323,250 during May, of which $4,823,443 represented 134,676 tons of wood pulp, $270,718 36,809 cords of pulpwood and $229,089 6,961 tons of rags and other waste.

PRESERVATION OF RECORDS

Most of the newspapers published in the United States since 1868 are probably doomed to extinction through decay of the paper, unless preservative or reproductive measures are employed, according to a report recently issued by the National Bureau of Standards. This report, known as Miscellaneous Publication M-145, describes in detail the results of an examination of newspapers published during the period 1930 to 1900. The study was made as a part of the Bureau's work on preservation of records.

The papers published before 1868 were printed on rag fiber paper. These were in excellent condition, and the Bureau states that they should endure indefinitely if protected against external deteriorative influences. Some papers published from 1868 to 1880 were found to be composed of straw fibers, and mixtures of straw, wood, and rag fibers, all chemically treated, and nearly all of these were in good condition. Most of the papers published since 1868 contained crude ground wood fiber and they were generally in an advanced state of decay. The resumption in 1927, by some publishers of the use of papers composed of high-grade fibers for permanent library editions, will

probably preserve some subsequent records, as tests indicated that satisfactory paper has been developed for this purpose.

The Bureau found that the practice of covering newspapers with strong Japanese tissue paper, as developed by the New York Public Library, greatly increased their strength and stability. Transparent cellulose acetate sheeting also gave very promising results. Photostatic and photolithographic printing on high-grade paper, and the use of photographic glass plates, are mentioned as means of reproducing newspaper records in stable form. It is suggested that when extensive reproductions are to be made, consideration be given to photographing the printing in miniature on glass plates and reproducing the prints on filmslides from which they can conveniently be enlarged for reading.

Textbook Sales Increasing

Reports from the McGraw-Hill Book Company, publishers of the textbooks upon The Manufacture of Pulp and Paper, sponsored by the Paper Industry of North America, upon sales during the first half of 1934 are most encouraging, says R. S. Kellogg, secretary of the Joint Textbook Committee.

Total sales distributed over the five volumes amounted to 274 copies during the first half of this year, compared with 408 copies during all of 1933. Since the publication of the first volume of the series in February, 1921, sales of the original and revised editions are now well beyond a total of 24,000 copies. The detailed record is as follows:

Textbook Sales	1st half 1934	Total to date
Volume I	29	4,188
Volume II	28	3,416
Volume III	73	6,655
Volume IV	66	5,508
Volume V	78	4,488
Total	274	24,255

The Joint International Textbook Committee has ample funds on hand through royalty receipts to cover thorough revisions of the several volumes at the opportune time. Data and suggestions for this purpose are being steadily accumulated by Editor Stephenson.

Food Dish and Pulp and Paper Plate Budget

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 6, 1934.—The National Recovery Administration has announced its approval of a budget for the Code Authority of the food dish and pulp and paper plate industry, and the basis of contribution by members of the industry toward the expense of administering that code.

The total amount of the budget is $25,000, covering the year 1934. The basis of contribution is one-half of one per cent of the monthly invoice shipments of each member.

E. J. McDonnell With Brown Co.

PORTLAND, Me., Aug. 3, 1934.—E. J. McDonnell has become associated with the sales department of the Brown Company here. Mr. McDonnell was formerly general manager of the Groveton Paper Company, Groveton, N. H., and more recently superintendent of the Fitchburg Paper Company, Fitchburg, Mass.

Gets Option on Wabash Plant

[FROM OUR REGULAR CORRESPONDENT]

WABASH, Ind., August 6, 1934.—Under a modified lease filed with the local county recorder, the Container Corporation of America is given the right to purchase the local plant of the United Paperboard Company at any time prior to June 1, 1941, for $900,000.

Should the purchase option be taken up, all rents paid the receivers for the use of the United Paperboard Company's plant up to the time of purchase, will be credited on the purchase price and the balance of the money will have to be paid in four semi-annual installments, with 6 per cent interest.

A downpayment of $10,000 for lease of the local plant was acknowledged in the modified lease as first payment on rent. Remainder of the rent is to be paid on a basis of $3 a ton for all paperboard produced each year in Wabash, payments to be made monthly, and a similar payment on al lboxboard made at any plant of the company, west of Pennsylvania, in excess of 45,621 tons yearly.

The container Corporation's original lease on the local plant was made on May 25 of last year and it took over operation of the mill here a few weeks later. The amended lease was signed in New York. Along with it was filed a deed for all of the local property. The property was deeded by William Stuhr and Sidney Mitchell, receivers for the United Paperboard Company, to William Stuhr and Joe F. Murray, as trustees. It provides that should the Container Corporation exercise its purchase option, the trustees are to turn the local property over to them. Otherwise they are to return the property to the United Paperboard Company on June 1, 1941.

Algonquin Makes Improvements

[FROM OUR REGULAR CORRESPONDENT]

OGDENSBURG, N. Y., August 6, 1934.— Extensive repairs are being made to the papermaking machine at the Algonquin Paper Company, which will allow increased production. Operations will be suspended during the alterations which will require about two weeks. With the completion of the work the machine will be capable of producing a roll 204 inches wide instead of 198 inches as heretofore. It was said that the improvements would cost about $50,000 and the majority of the employees will be given other work during the shutdown. It was claimed that the machine was the largest in the world when constructed by the Bagley & Sewall Company some time ago.

Announcement was made that the company has made a contract to supply the chain of publications controlled by Frank Gannett with 2,000 tons of newsprint monthly. Previously a large portion of the output of the local plant was shipped to the nearest publications but it is said that the concern is now placing its contract in Canada. An official also stated that plans are under way for construction of a new waterfront warehouse which will be used for storage purposes. It is planned to ship much of the product over the St. Lawrence River and the barge canal.

Finnish Pulp Market Marks Time

WASHINGTON, D. C., Aug. 6, 1934.—The Finnish wood pulp market appears to be marking time. No new developments have occurred in the chemical pulp field over the past two months. The volume of inquiries for mechanical ground wood for this year's delivery are very limited and so far as can be ascertained few, if any, orders have been entered for 1935 delivery.

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Physical Structure and Sorption Phenomena of Cellulose*

By W. Boyd Campbell[1]

The studies on the sorption of vapors by cellulose which have been in progress at the laboratories for a considerable time have as their main object the elucidation of the relationship of cellulose to water. Until this relationship is well understood we cannot hope to understand how the properties of cellulose function to unite fibres into a sheet of paper. As this is the fundamental process of the whole industry any progress leading to a better understanding of it is worthwhile, even if it is only a matter of confirming or contradicting opinions which have long been held.

The work started, so far as the laboratories were concerned, when a series of determinations were made in 1929 to determine the amount of hydration of pulp produced by beating. The result of this series of experiments indicated that beating did not produce hydration at all. This conclusion did not mean, as many understood it to mean, that there was no such thing as hydration but rather that beaten and unbeaten pulps are hydrated to the same degree. The evidence on which this conclusion was based was that beating made no change in the curve of vapor pressure against moisture content of the pulp. If there had been any change in the manner in which the moisture was held this curve would necessarily have been affected.

The first series of such experiments were done rather hurriedly and made use of apparatus in the Chemistry Department of McGill University. Sometime later it became possible to make further investigation in our own laboratories. Apparatus was built along lines similar to those used in the first work but with modifications which permitted a greater accuracy. It was felt that this greater accuracy was necessary because the original conclusions went contrary to a mass of opinion which was widely held. Because of the requirements of greater precision work progressed more slowly but the final result was to confirm the earlier findings.

Since the experiments showed that beating caused no change in the degree of hydration of pulp, it became necessary to formulate some hypothesis to account for the changed paper-making properties of beaten pulps. In brief, the hypothesis put forward amounted to the following:

Cellulose fibers are not homogeneous but are made up of cellulose elements which form a kind of network structure with water normally filling the interstices. The general arrangement of the elements of the structure varies among fibers of different origin. The total surface of the cellulose is the surface of these elements and is many times the external surface of the fibers. On beating, the mechanical action partially breaks up the structure so that much of the surface which originally was inside the structure becomes external surface. Thus, although there is no appreciable increase of total surface, there is an increase of external surface. Because of the water absorbed on all these surfaces, and the partial solubility of long cellulose molecules in this water, bonds are formed when two such surfaces dry in contact with each other. Beating is effective in producing greater strength of paper chiefly because it produces more external surface which is the only part of the whole surface available for bonding the fibers to each other.

It will be seen that this hypothesis, far from denying the existence of hydration, postulates a layer of water of hydration over all surfaces. It views the beating action as a purely mechanical one of partially breaking up the fiber structure. In this it is very closely in accord with the ideas of the older school of beater men who regarded "hydration" simply as the "brushing out" or "fibrillation" of the stock.

It is probably too late in the day to abolish the term "hydration" as applied to the effect of a beater in causing the stuff to work wet on the machine, but it should be understood that such action is synonymous with "fibrillation" and has not the meaning normally attached to it by chemists. The cutting action of the beater is, of course, a mechanical action of a definitely different character though in practice it seems impossible to produce the two effects independently.

Beating in Alcohol

Paper is always made from a water suspension of cellulose fibers. If a liquid other than water, say, alcohol, is used to form the sheet it is found that there is no binding of fiber to fiber. Since this binding is essential to paper-making it was worth investigating. It was thought likely that sorption experiments would show up something of the mechanism of such binding if a comparison were made among the data for water, methyl alcohol, propyl alcohol and possibly higher alcohols. Accordingly experiments were started with this in view.

* Quarterly Rev. Forest Products Laboratories of Canada (April, 1934).
[1] Member TAPPI, Research Chemist, Forest Prod. Labs. of Canada, Montreal, P. Q.

The work of Kress and Bialkowsky showed that cellulose swelled in these three liquids in about the proportion 90, 62 and 6. Because of this and because of the known slight effect of alcohols in softening paper it was expected that the amount of sorption would be slight. It was somewhat of a surprise, therefore, to find that, except near saturation vapor pressures, the sorption of these alcohols was greater than that of water. Even more unexpected was the finding that a considerable percentage of alcohol remained sorbed even at zero vapor pressure as produced by a mercury diffusion pump working continuously for two weeks. This obstinately held alcohol amounted to about 2 per cent of methyl and about 4 per cent of propyl on bleached sulphite. It was previously known that a small amount of water was held by cellulose even when dried in vacuum over phosphorus pentaxide. This latter phenomenon was also checked in the course of the work and it was found that a sample of purified cotton, dried by phosphorus pentoxide in this way, could have about 0.35 per cent of water driven off by heating the sample to 100 deg. This amount was regained from the pentoxide when the sample was allowed to cool from room temperature. That this was water was visibly demonstrated by condensing it in a capillary tube cooled with a carbon dioxide freezing mixture. Cellulose is thus shown to be the most powerful dehydrating substance known. It is possible that commercial use might be made of the absorbent properties of cellulose if they were more widely known.

Summary of Findings

It is not possible to go into all the details of the data and calculations based on them in this short report. They will be later published in more carefully prepared form. But a summary of the findings will be given here.

When liquids rise in capillaries a tension is exerted throughout the liquid column. The intensity of this tension can be calculated from the height to which rise occurs or, what amounts to the same thing, from the lowering of the vapor pressure of the liquid in the capillary. Like hydrostatic pressure, this tension acts equally in all directions and so tends to cause a contraction of the capillary passage. Whether any appreciable change in such capillary volume takes place depends on the rigidity of the walls as compared with the tension. Strictly speaking such tension is a reduction of the normally existing "internal" or "intrinsic" pressure which exists in all liquids in consequence of the mutual attraction of the liquid molecules. Since liquids change shape so readily, it is difficult to demonstrate the presence of such pressure because to do so one must apply tension to the liquid. Experimentally such tensions have only been demonstrated up to a few hundred atmospheres but much higher values exist in the capillaries of porous solids. Details of the method of calculation of such tensions may be found in Forest Service Bulletin 84. (F. P. L. Canada, Montreal, P. Q.)

At equal relative vapor pressures the internal tension of water is much greater than that of methyl alcohol and this is greater than that of propyl alcohol. To see if such internal pressures were connected with the volume of the cellulose structure and through this governed the volume of liquid held, the amounts of sorbed liquid were plotted as volumes against the calculated intensity of such tension. When this was done it was found that all three liquids used gave very nearly the same curve instead of being widely different when the sorption was plotted against relative vapor pressure directly.

These results are so nearly identical that it seems reasonable to interpret them as meaning that this internal tension is the governing factor in determining the amount of sorption, modified of course, by the degree of rigidity of the cellulose structure. This rigidity is largely a matter of the degree of bonding of the structural elements.

Structure of Cellulose

Combining the data of these experiments with other known facts about cellulose the whole picture is as follows: Cellulose is formed in the growing plant and is laid down as a structure of long crystals bound to each other at various points by the crystal growth. The spaces between the solid elements of the structure are filled with water. In this state the structure is without strain. On drying the fiber to remove water the structure is deformed so that strains are set up in the structure; these are balanced by the internal tension of the liquid. Consequently the volume of liquid held at any stage is conditioned by the rigidity of the structure tending to restore the original volume and the internal tension holding it in the strained position. As drying draws the structure together, parts of it become close enough for additional bonding to take place, thus increasing the rigidity. On reversing the process by allowing the cellulose to pick up water, the reduced liquid tension allows the strains to be reduced and the structure tends to expand in the direction of the original size. But the bonds formed during drying constitute an additional force which tends to prevent the balance being quite the same during absorption as during desorption. When drying, the balance is internal tension against structural strain; when picking up moisture the balance is internal tension plus stress on newly formed bonds against structural strain. In consequence of this, cellulose does not expand on absorption to quite the same volume as it has on desorption, the internal tension or vapor pressure being the same. Thus desorption and absorption curves are not identical.

The effect of formation of bonds during drying and the solution of these bonds during absorption is shown in the curves obtained. When samples originally dried from water are used, a rather large number of such extra bonds are produced either because of the additional degree of shrinkage or because of the greater solubility of cellulose in water or both. During desorption the main force acting is that of internal tension. Any new bonds formed occur where surfaces are in contact or nearly in contact anyway and so they have little effect on the volume although they must make the structure somewhat more rigid and resistant to further compression. Throughout desorption, therefore, the curves should be nearly identical regardless of whether water or alcohol is used and this is found to be the case.

During absorption the alcohols are able to dissolve only some of the bonds formed when the water was dried out; methyl alcohol dissolves bonds more effectively than propyl. Consequently at corresponding values of internal liquid tension the structure has less volume when absorbing methyl alcohol than when absorbing water and less still when absorbing propyl alcohol. These curves are therefore not identical with each other but are of similar shape and are displaced in the order, water, methyl alcohol and propyl alcohol.

The case is a little different when the cellulose samples are dried from alcohol. Pulp, saturated with water and hence well swollen, is washed with alcohol until the water is removed and finally the alcohol is evaporated. When this is done the bonding is not nearly so extensive. The curve of alcohol vapor sorbed against internal tension is very nearly the same as for water vapor whereas with water dried samples it is quite a bit lower. Such bonds as are formed on evaporation of the alcohol are apparently dissolved by the alcohol as it is re-absorbed. On desorption, the slight amount of bond formation leaves the structure less rigid than in the case of water so that the same force

of internal tension produces a somewhat lower volume when the tension is great.

This idea of the mechanism of sorption is at variance with that usually held. The conventional view is that absorption takes place, except near saturation, solely because of the attraction of the solid for the vapor; that the solid particles, by virtue of such attraction, tend to surround themselves by liquid layers and hence swelling takes place. The criticism of this view is that such attraction could not extend to more than the first layer of two of sorbed molecules and that sufficient weight is not given to the presence of a bonded solid structure without which the whole would disintegrate in liquid as happens in certain other gels such as gum arabic. Insofar as the sorbed liquid can dissolve bonds the views are the same but in our view swelling is chiefly due to a release of residual stress in the structure instead of to chemical affinity. Kistler's demonstration that, by proper manipulation, the liquid in the swollen gel can be replaced by almost any other fluid, including air, rather negatives the chemical affinity idea.

Nature of the Bonding

One point has not been covered and that is the nature of the bonding. There is little direct evidence as to the mechanism of this and its exact nature is not of consequence to the explanations set forth above except that bonds are formed and dissolved more easily by water than by alcohol. Our hypothesis concerning this was given in Bulletin 84. The hypothesis is based on what may be expected in the way of solubility phenomena when molecules of the type of cellulose are involved. Experimental support, other than by analogy with similar molecules is lacking but support for any contradictory view is even less. Because cellulose is made up of units of glucose anhydride its solubility relations should be similar to those of glucose. It should have considerable solubility in water and much less in alcohol, for instance. In our view these relations really hold but are modified by the length of the molecule chain. Substances are soluble when their attraction for liquid is greater than the attraction between parts of the solid crystal. At saturation the concentration of molecules in the solution is so great that there is a balance between the number of molecules leaving the solution to attach themselves to the crystal and the number leaving the crystal to go into solution. With very long molecules like cellulose solution cannot take place unless all the units of the chain surround themselves with solvent simultaneously. Naturally this is very unlikely to happen. It is to be expected rather that parts of the chain will surround themselves with solvent temporarily and so be "dissolved" even though the whole molecule is not. In this sense there will be a partial solution of the molecules in the exposed surfaces of the cellulose. Such a condition will make for bonding of the crystals to each other because the dissolved portion of a molecule may, instead of reattaching itself to the parent crystal, join up with another crystal if the latter is at all close. It is in this manner we conceive the structure to be built up and by similar action the fibres to be united to each other in paper.

Recent Trends in Groundwood Manufacture*

By H. Wyatt Johnston[1]

Pulp Stones

A few years ago, while active construction was still taking place, the trend of machine design in pulp grinders was in the direction of continuous chain fed installations and in many cases about 50 per cent of artificial stones were employed. The past few years have witnessed an almost complete cessation of new construction, while the tendency has been to consume existing inventories of pulp stones before making fresh purchases. Stones in storage at inactive mills have been transferred to active units and the general low operating ratio has permitted a low reserve to be maintained. New offerings of foreign pulp stones at bargain counter prices have tended to diminish the interest in the artificial stone, which the vision of possible shortage had created during the period of high operating ratios and expanding installation.

Certain minor changes were marked in the later installations. Early continuous grinders were governed by current fluctuations. This works well on short transmission lines, but in locations far from the electric generators voltage fluctuations make current a poor guide for rate of advance of wood. A wattmeter makes a more logical base for controlling pressure or rate of advance, since constant power consumption is the desired goal. A number of electric motor actuated pressue controllers have been converted to fluid actuated types, and it is claimed that superior accuracy is obtained. There has been a tendency in later continuous grinders to increase the speed of grinding to something in the range between 4000 f.p.m. and 4400 f.p.m. peripheral speed. This was obtained by increasing stone diameters and motor speeds, and was not readily applicable to existing installations.

Unit grinding pressure ranges about 40 to 50 pounds per square inch of pocket or magazine area; increases to higher pressures have not been possible without either exceeding the power capacity of the installation or else lowering the quality of the pulp produced through excessive sharpness of the stone surface. Another innovation has been the application of temperature controlling devices, which increase or diminish the supply of water to the grinder pit, and so maintain more uniform temperatures in the stock flowing over the dam than can be attained by manual regulation. The consistency is at the same time controlled, because the amount of wood ground is related to the energy consumed and the latter is recovered practically completely as sensible heat. On the other hand an increase in the resistance of the wood to grinding or the diminished production obtained from a dull stone will require more water per unit weight of wood ground and so result in a lower consistency to maintain the temperature. This result is not due to the regulator and can only be eliminated by sharpening the stone or supplying water at a lower temperature.

Return to Pocket Type Grinders

Recent construction has evinced a swing back to the pocket type of grinder as exemplified by the Great Northern developments in Maine. The advantages of the hydraulic magazine grinder are recovered, in fact the new device appears to be just as flexible in operation as that old standby, the four pocket grinder. By providing a charging pocket which automatically trips its charge into the grinding pocket, the huge overhead magazines are replaced by a simple flume and yet the labor cost is equal to that

* Quarterly Rev. Forest Products Laboratories of Canada (April, 1934).
[1] Acting in charge, Forest Prod. Labs. of Canada, Montreal, P. Q.

secured with the even more cumbersome continuous grinder. Four foot wood is handled with ease, the burring tackle can be located between the pockets as in the hydraulic magazine installations, so that gravity holds the burr to the stone and the cost of the new grinders is about half that of continuous pattern (excluding, of course, the motors).

It is questionable if the hydraulic magazine or continuous types would have displaced the new Great Northern pattern to any extent had the latter been in existence when the overhead magazine types developed. The new design will probably be seen in any extensive expansions of groundwood equipment, although for the sake of uniformity small expansions would tend to conform to local types already in use, as the spare parts problem is thus greatly simplified.

Artificial Stones

Considerable development has taken place in the manufacture of artificial stones, particularly in the alloys used to lute the joints between segments. The tendency has been toward the use of finer grit sizes than at first, as owing to the long life of an impression, grit characteristics tend to predominate. Somewhat softer bonds are now being furnished in order to facilitate sharpening. The substitution of the cheap concrete core which can be thrown away, has reduced the cost of the stone by eliminating the expensive iron centre and its carriage back to the factory for resurfacing. Operators in most instances hesitate to equip their grinders with 100 per cent artificial stones. There is a general impression that the pulp from artificial stones is slightly lower in quality than that from sand stones. It is doubtful if there is much real evidence to support this view; on the experimental scale using artificial stones, the writer has prepared pulps fully equal to all grades of pulp commonly made on sand stones, so far as physical tests can be employed to evaluate pulp. Another and more valid objection is that after dressing an artificial stone, several hours are required before the new dressing is producing the quality of pulp desired. Rolling a stone does not take immediate effect as with sandstones, but requires several hours before the surface is stabilized. With sandstones, on the other hand, sharpening or dulling can be carried out with little delay, which is an advantage in countering the effect of a change in the condition, of the wood going to the grinders. For this reason mills manufacturing specialty groundwood pulps should probably stick to sandstones, unless the constant demand for one grade warrants the long-lived impressions obtainable on artifical stones.

Forest Products Laboratories Investigations

The work now in progress at the Pulp and Paper Division indicates the possibility of increasing the productivity of grinders merely by increasing the surface speed of the motors employed. This change would be less costly than either buying additional grinders and motors or replacing grinders by units which take larger stones or will withstand higher pressures. Crushing of wood is noticeable in continuous grinders at high rates of advance, and higher pressures mean stronger frames and driving gear. Speed offers increased production without increased mechanical costs; in new installations capital costs could readily be halved. The chief obstacles are the development of artificial stones to run at 8000 f.p.m., the probable need for anti-friction bearings and the problem of dressing at high surface speeds. The first obstacle can probably be overcome, but the use of high speed grinders will be tied to the artificial stone permanently. The bearing problem is not serious. Dressing at high speeds can probably be done with suitable burring tackle and true burrs. With long life of impression sharpening can often be restricted to shutting down or starting up, and so carried out by inertia. A considerable amount of interest has been taken in results obtained at the Pulp and Paper Division, suggesting that increased speed might be accompanied by a decrease in freeness and increased bursting strength. This was observed at high freenesses, but subsequent work at lower freeness with an artificial stone indicates that increased speed results in increasing freeness and decreasing strength just as in the case of pressure.

The most evident feature of the investigation appears to be that any combination of burst and freeness now made at low speeds or pressures can be made at higher speeds or pressures of both, provided the same wood is used and the stone surface properly adjusted. It would appear that just as good pulp can be made with artificial stones as with natural ones, but surface adjustment is more difficult. The horsepower consumption under any of these conditions seems to be determined by the quality of the pulp desired, and perhaps the biggest variable encountered is in the conditions of the wood ground. Comparing wood at 50 per cent moisture felled with wood at 40 per cent moisture one year in pile, the h.p. per ton and burst ratio jumped nearly 100 per cent in experimental work at the division, about two hours grinding occurring on each wood. Subsequent runs confirmed this relationship.

Much interest is being attracted by the possibility of reducing power consumed in grinding, as suggested at the Annual Meeting of the Canadian Technical Section by W. B. Campbell. It is proposed to set on foot at the Pulp and Paper Division an investigation into the fundamental nature of grinding and why the power usefully consumed is so small. This is a difficult and ambitious study, but the fruits of victory would be very great. Patience and ingenuity will be required for a long period for any measure of success to be secured.

The last feature of interest is the production of high speed newsprint without sulphite in the furnish. This is a question as to whether the necessary quality of groundwood can be made at a suitable price. A freeness of 100 to 120 will be required together with a good tear and a burst of 30 points lb. or more. Horsepower per ton will be higher than at present, and in this manner there will be found certain limits within which energy consumption must fall if the idea is to be profitable commercially. Other possibilities may be considered, such as blending, selective screening, refining or hydrating of long fibe stocks, but in every case the problem is one of cost. Nevertheless, once a technically correct solution for a problem can be found, time and zeal often render its use financially possible provided that the development is not carried too rapidly from the semi-commercial stages into production.

Protest U. S. Aid to Florida Mill

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, August 6, 1934.—United States Senator Robert Bulkley, who visited this section of Ohio from his home in Cleveland this week sent a letter of protest to Secretary Ickes against the proposed loan and grant to the City of Fernandino, Fla., for the construction of a pulp mill.

Mr. Bulkley acted, it is understood, upon the request of Carlton W. Smith, president of the Miamisburg Paper Company and Alfred A. Srere, president of the Miami Valley Coated Paper Company of Franklin, both of which are substantial valley industries.

Early this year the city of Fernandino applied to the PWA for funds to finance the construction of a kraft pulp mill, which it was planned, would have a capacity of 400 tons.

Hydraulics and Paper Machine Sheet Formation*

By A. M. Lund[1]

Abstract

In the following discussion we are going to consider those factors involved in the stock inlet which affect paper formation. We will, therefore, briefly consider the head box, the apron board, and the slice, in connection with the problem of forming a good sheet of paper. Such questions as are involved in fiber mixtures and its treatment as affecting the question of formation will not be considered.

Formation

A well formed sheet is considered to be one which distributes the light uniformally that is transmitted through it, and contains no light or dark spots when looked through at the light which are indicative of fibrous lumps or bundles, or thin spots in the paper. This result is obtained through uniform distribution of fibers over the area of the sheet.

For purposes of definition, we would call this the perfect formation, although this perfect formation may not be desirable in a specific grade of paper, because the use requirements of that paper demand otherwise.

The only way this formation can be obtained will be if all the fibers leaving the stock inlet are distributed evenly in all directions, and if the horizontal speed of the fiber mixture in all horizontal planes above the wire is the same as the speed of the wire.

The perfect formation is not the best closed up formation. This will readily be seen if matches, representing fibers, are put side by side, covering a certain area, and then a certain number of them are taken out and put crossways to the others. The closest formation would be obtained by the fibers lying side by side, but this would of course hardly make a sheet of paper. In many cases, particularly in lightweight paper, where a closed formation is imperative, only enough fibers are crossed to give the sheet sufficient strength to stand the strain of conversion.

On the other hand, the papermaker more often than not is desirous of developing the most perfect formation possible, which means that he must throw as many fibers across the sheet as possible, the ultimate object being a condition where the long axis of the fibers are distributed uniformly around the points of the compass. This perfect formation is advantageous if bulk is desired, and will permit more rapid drainage of the sheet than any other formation. It also will produce a very nice appearance in the sheet. It is much easier to approximate this formation at slow machine speeds than it is at higher speeds. We will come back to the reason for this later.

The papermaker can make the following adjustments in an attempt to obtain satisfactory distribution of the fibers:

(a) Vary the amount of water per pound of fiber.

(b) Keep his stock well mixed by adjustments in the headbox.

(c) Vary the head of stock mixture back of the slice or inlet by raising or lowering the outlet.

The Headbox

The headbox is used primarily for three different purposes (a) to distribute the mixture of stock and water, which generally enters the headbox from a pipe or trough, evenly across the width of the machine as it enters the machine inlet; (b) to keep the mixture homogeneous up to the same point, and (c) to prevent cross currents from entering the machine inlet.

There are different types of headboxes, but all seem to have the same characteristics: the reversal of flow of the mixture, and the throttling of the flow at different points. In this connection I will only mention that the baffles should be adjustable, so the proper throttling can be effected when grades, weights or speed are changed on the machine. If this is not the case, there is no way of livening up the flow, if the amount of water is decreased for a slower machine speed.

If the proper throttling can not be obtained, the stock will become lumpy before it reaches the machine inlet.

In my opinion the best effect is obtained when the stock mixture is kept agitated as close to the inlet as possible, and thereafter is delivered in front of the slice as smoothly as possible, as any disturbance of the flow at this point will be transmitted through the slice onto the wire.

The Stock Inlet

The purpose of the stock inlet is to accelerate the stock mixture to the approximate speed of the wire, and also to distribute the mixture evenly over the surface of the wire.

Immediately in front of, or in the stock inlet, we will often find fins for the purpose of preventing cross currents. Sometimes we will find contraptions designed to mix the fibers for the last time before they flow out on the wire (such as perforated rolls) or two or three layers of built-in channels designed to throw the stock mixture in different directions as it is discharged from the stock inlet.

Figs. 1, 2 and 3 show different forms of inlets now in use, and also show roughly how the stock mixture will flow through the inlet. The flow is divided in four waterways, the extremes of which we in the following will call streamlines. The waterways are drawn according to recognized hydraulic principles in such a manner that each waterway carries the same amount of fluid. The diameter of the circles are inversely proportionate to the velocity in the cross-section of the waterway.

To understand the following it is necessary to mention

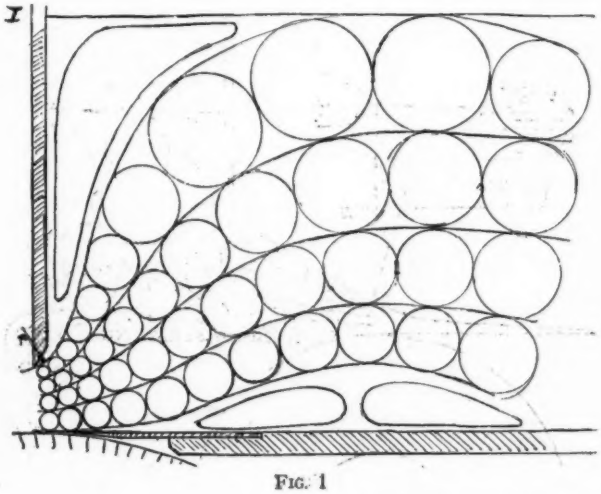


FIG. 1

* Presented at the meeting of the Delaware Valley Section of the Technical Association of the Pulp and Paper Industry, Philadelphia, Pa., Feb. 23, 1934.

[1] Superintendent, Mazer Paper Mills, Lansdowne, Pa.

the fundamental hydraulic rule on which this design is based:

If a flowing fluid at any point changes its course, a variation in pressure occurs vertical to the direction in which the fluid flows, and the hydraulic pressure which is caused by the change of direction, will gradually increase from the concave towards the convex side of the curve. The velocity of the fluid at different points will vary in such a manner that the highest velocity will be found where the hydraulic pressure caused by the change of direction is lowest. This is evident from the well-known formula for velocity and pressure-condition in flowing water

$$H = h + \frac{v^2}{2g}(1 + k)$$

where H — static pressure
h — hydraulic pressure
v — velocity of water
g — gravity constant
k — friction coefficient

The formula for the pressure increase in a plane vertical to the waterway is

$$dh = \frac{1}{g} v^2 \frac{dr}{r}$$

where r — the radius of the streamlines,
dr — distance between two points with difference in hydraulic pressure (dh).

The Straight Slice

In the case of the single slice the stock mixture near the point of the outlet makes a very sharp turn, and the radius for the streamlines is very short. Consequently the pressure increase under the slice due to the change in direction of the flow will be very great, as soon as a head of any consequence is carried back of the slice. This is evident from the formula for the pressure-increase, which is inversely proportionate to the radius r. It is also evident that increased velocity at the point of the outlet will increase the pressure very rapidly, as dh is proportionate to v^2.

With increased machine speed, which necessitated a higher and higher head beind the slice, the difference in speed between the top and bottom planes became so pronounced that the forming of a good sheet became more and more difficult. The necessity for a different type of inlet, which could give more uniform discharge velocities in different horizontal planes above the wire, resulted in the high pressure inlet shown in Fig. 2.

The High Pressure Inlet

In the high pressure inlet the stock mixture is gradually accelerated, and the static pressure transmitted into kinetic energy. The nozzle effect obtained by this type of inlet makes the radius of the streamlines much longer, and, if

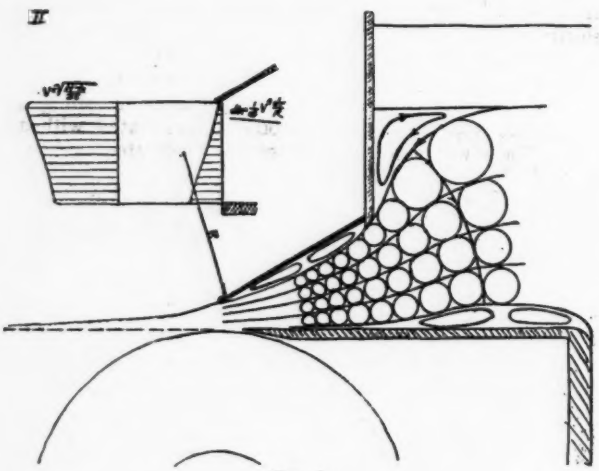


FIG. 2

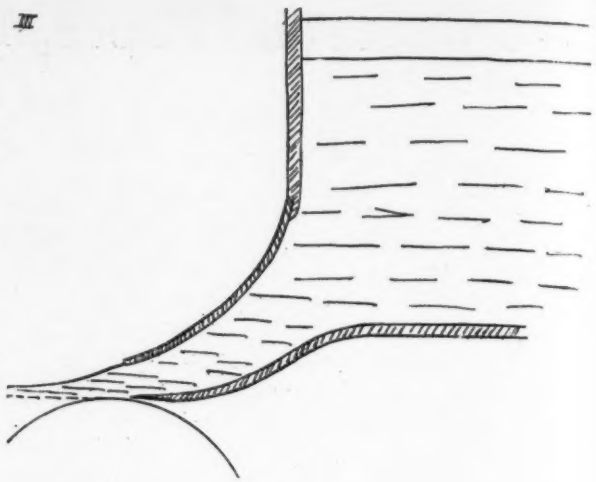


FIG. 3

we again consider the formula for the pressure increase, permits much higher velocity (v) before the difficulty caused by too large a pressure increase (dh) occurs.

A weakness with this inlet is the difficulty in finding the proper position of the lip. As the concentration of fibers in the mixture varies from time to time, a new position of the lip must be found, in such a manner that the whirling currents under the lip, as shown in the sketch, will give the stock mixture the proper streamlines through the outlet.

Another form for high pressure inlet is shown in Fig. 3, and is in my opinion an improvement, as the whirling currents under the lip shown in Fig. 2, has been eliminated. Also with this inlet, however, the pressure condition shown in Fig. 2 must occur.

To illustrate the difference in speed in different planes above the wire let us take the following example.

Speed of machine—900 feet per minute or 15 feet per second
Opening of slice—1½ inch—0.125 feet
R_1—radius of streamlines at discharge point—14 inches
R_2—15.5 inches or 1.292 feet
H —static pressure
v —speed of wire
h —hydraulic pressure

It is well known that if the stock mixture on the surface of the sheet runs ahead of the wire, it will tend to distort the formation. Let us, therefore, consider the speed in the top plane the same as that of the wire.

Total increase in hydraulic pressure:

$$\int_{r}^{r_2} dh = \frac{1}{G} v^2 \int_{r_1}^{r_2} \frac{dr}{r}$$

$$h = \frac{1\, v^2}{G} (\text{Ln}r_2 - \text{Ln}r_1)$$

$$= \frac{15^2}{32.2} (\text{Ln}.1.292 - \text{Ln}\ 1.167) = .7126 \text{ feet}$$

$$= 8.5 \text{ inches}$$

The hydraulic pressure prevailing immediately above the wire corresponds to a static pressure of 8.5 inches.

The theoretical head for the inlet is

$$H = 1.01 \frac{15^2}{64.4} = 3.52 \text{ feet} = 42 \text{ inches}$$

We get the velocity in a plane immediately above the wire from

$$H = h + 1.01 \frac{v^2}{2g}$$

$$v = \frac{\sqrt{(3.52 - 0.7126) + 64.4}}{1.01} = \sqrt{179}$$

$$= 13.4 \text{ feet per second}$$

The relative speed of the stock mixture in this plane to the wire is 1.6 feet per second.

Relation of Hydraulics to Formation

You will probably ask: What has all this got to do with the formation of the sheet?

One of the most important factors in the forming of a sheet is the tendency of the fibers to form in the machine direction. The new theory for this which I will present in the following, is based on the different speeds in different horizontal planes above the wire.

Before doing this, however, I will have to discuss the generally accepted theories for this phenomenon.

The old comparison between the fibers in the stock mixture and a log floating down a stream is in my opinion wrong. It is also a somewhat hopeless theory, because whatever you would try to do to the fibers to change the position to the flow, they would in short order resume their original position.

Let us look at what happens to the floating log. On account of the lower specific gravity, the log will travel slower than the water. In the upstream side of the log there will be a slightly higher water level than on the downstream side. The difference in head is the driving power for the log. If at any time the log will turn, an eddy will form at each end of the log, tending to lower the waterlevel at these two points. It will easily be seen from hydraulic considerations that the eddy on the downstream end will be stronger than on the upstream end, because of the angle alpha will be greater than beta. Fig. 4. This will lower the pressure more at this end, and the resultant water pressure will turn the log in the direction of the river.

As the fibers in the stock mixture have approximately the same specific gravity as the water, there can not be any appreciable difference between the speed of the fibers and

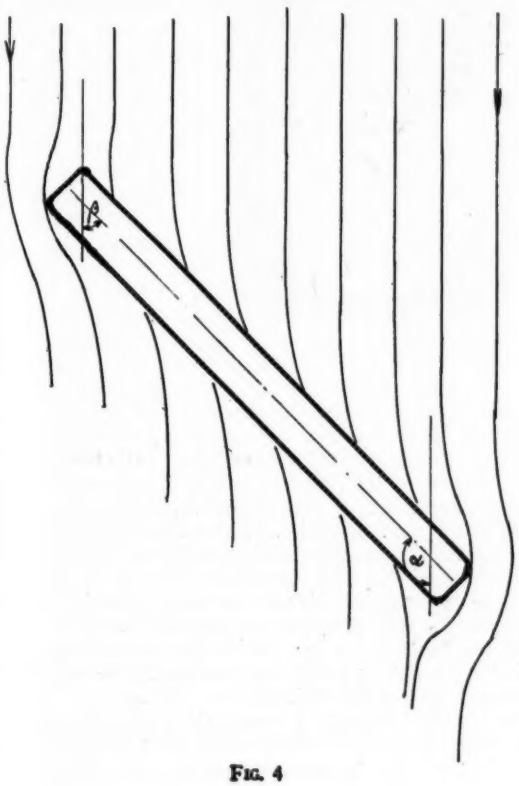


FIG. 4

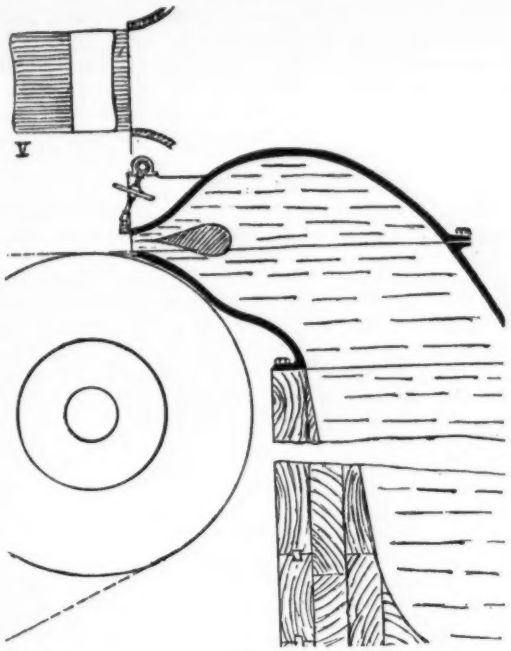


FIG. 5

the velocity of the water. A difference in speed, however, is necessary if the fibers should take the position of the least resistance.

It will also be well to remember that the fibers are flexible, and would bend if any force similar to that exerted on the log should occur.

In contrast to the old theory, according to which the fibers already are lined up in the machine direction as they flow out on the wire, I will try to prove that the fibers, or bunches of fibers, in the stock mixture, are constantly revolving while going through the inlet, and therefore must be pointed in all directions with no set rules as they flow onto the wire.

To do this, we will have to go back to the streamlines in Figs. 1 and 2. As before mentioned, the velocity of the mixture changes rapidly from point to point in a plane vertical to the streamlines.

It is obvious that any particle of significant dimensions which is sustained in such a current will be in contact with two layers of water; those on the under and upper sides, which are moving at different velocities. The slower velocity will produce a drag on one side of the fiber; the faster velocity will accelerate the other side of the fiber. The result will be to impart a whirling or rotating motion to the fiber. The action is like that of a child rolling a hoop. The upper side of the hoop is accelerated with a stick. The lower side of the hoop is decelerated by contact with the ground. The hoop whirls.

As before mentioned, if the velocity on the surface of the stock mixture as it flows out on the wire is greater than the speed of the wire, it will tend to disturb the formation of the sheet. The best we can hope to obtain at this point is a speed equal to the wire speed.

Let us see what happens to the velocity and the fibers in different horizontal planes as we come closer to the wire.

As already proved, the velocity will decrease the closer we get to the wire. I also hope to have proved that the fibers are pointed in all directions as they leave the outlet.

As the first layer of fibers hit the wire, the majority of them, as already mentioned, will hit with one end first. Not having obtained the same speed as the wire, most of

them will be turned in the machine direction, and form a very dense sheet with the grain decidedly in this direction.

This process will continue from plane to plane, and as the speed of the fibers in relation to the wire increases, the turning of the fibers will be less and less marked as we get closer to the surface of the sheet of fiber mixture.

A New Theory

The fibers leave the inlet pointing in all directions. Accordingly the majority of fibers will hit the wire (or the sheet already formed) with one end first. Because of the relative speed between the wire (or the sheet already formed) and the fibers, they will be dragged with the wire (or the sheet already formed) in the machine direction.

To illustrate the speed with which the fibers will line up in the machine direction, due to the relative speed between the wire and the mixture immediately above the wire, let us go back to the illustration already used.

The relative speed being 1.6 feet per second, a fiber of 3 mm. length pointed vertical will require

$$T = \frac{3}{1.6 \times 12 \times 25.6} = \frac{1}{167} \text{ seconds}$$

to line up in the machine direction.

The theory here set forth I hope in time will take the place of the before mentioned, as the reason why the fibers have a tendency to line up in the machine direction.

From the viewpoint of this new theory I will discuss certain phenomena familiar to any papermaker.

The Shake

Particularly at low speed, very frequently a shake is used on the machine for the purpose of getting more crossways strength in the sheet. The movement of the wire tends to set up waves across the wire. If the fibers were lined up in the direction of the machine, these waves would give the fibers an elliptical movement, a rotation about the long axis of the fibers, and no particular change of formation would take place.

However, with the fibers pointed in all directions, as the result of the velocity difference which exists in the stock, the ends which are in juxtaposition to the wire will become entangled in the wire. The sidewise motion imparted by the shake will then swing the fibers across the wire.

A big proportion of the sheet is formed a few inches from the inlet, and the water is rushing through the wire with a downward direction. If the fibers would take the direction of the flow, the great majority of them would be formed with the ends sticking up. This would make it almost impossible to form a good sheet.

With this theory, the variation in speed of the horizontal layers of the fibers is the only thing that counts.

In this connection I will mention the amount of water used in forming a sheet at a certain head. If a sheet is not forming properly on the wire, one of the first things to do is to add more water. In many cases this will improve the formation to begin with, but, if water is continued to be added, it will soon show a tendency to destroy the formation.

This is caused by the slice being opened so wide that the pressure difference between the planes close to the wire and those on top of the mixture will be too great.

In this paper, an attempt has been made to explain the tendency of the fibers to form in the machine direction. Due to the difference in speed between the wire and the stock mixture, the dragging and turning action of the wire and the part of the sheet already formed on the wire will prevent a perfect formation and a homogeneous sheet.

An Inlet Design

Fig. 5 suggests an inlet which will give approximately the same velocity of the mixture in all planes above the wire, if properly designed.

This inlet may not be beneficial for all grades of paper, but for high speed machines and paper requiring great crossways strength and a homogeneous structure, it should be a decided improvement.

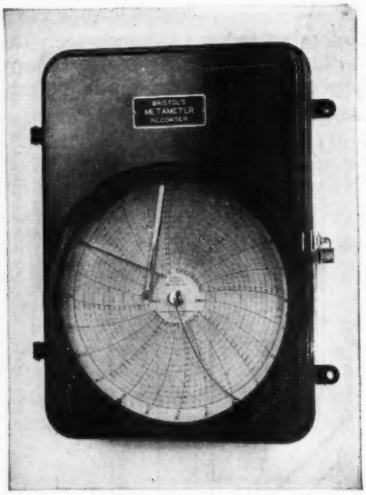
The pressure and velocity-conditions of the stock will not be greatly changed when changing the head behind the slice or the consistency of the stock, which is the case with inlets now in use.

It should be pointed out that this inlet in contrast to the ones used at present, will throw the heavier particles of the mixture, such as mineral fillers, and the finer fibers, into the upper half of the inlet, which will give a chance of higher retention.

The two streams of mixture on each side of the "needle" meet shortly before the outlet, and will give a pressure and velocity-curve as shown on the sketch. The needle is adjustable horizontally for different speeds, and should be chromium plated. as should also be the inside of the housing.

Bristol's Metameter System

The Bristol Company of Waterbury, Conn., has now available a novel long-distance transmitter and recorder operating on the well-known chrono-flo system. Adapted to Bristol's Metameter, this system consists of a transmitter, a recording receiver, a relay and rectifier box at the receiver, and a two-wire line connecting the transmitter and receiver. With this system, records of temperature, pressure, liquid level or motion may be transmitted great distances, 250 miles or more, with extreme accuracy and with freedom from circuit disturbances.



The principle of operation is as follows: The transmitting element detects the measurement and translates it into a time function. By this means, the two-wire circuit carries an impulse during a portion of a fixed time interval and is broken for the remainder of the interval. This time interval is provided by a synchronous motor-driven continuously-rotating cam. The time that the circuit is made during each rotation of the cam is proportional to the amount the condition being measured has risen above the base to zero measurement.

These messages of circuit made and circuit broken are translated by the recording receiver into upward or downward movement of a pen positioning mechanism, thereby periodically carrying the pen arm to its new position as measured by the transmitter.

This system requires a source of alternating current at both receiver and transmitter, but they need not be synchronized nor of the same frequency.

Wood Preparation From the Pond to the Chippers*

By F. A. Nicholson[1]

The preparation of wood before chipping is being accomplished by such a wide variety of methods, which are dictated by so many variable factors, that perhaps it would be desirable to limit our discussion to certain recent trends in mechanical equipment as used in the wood room.

The size and condition of our trees make it necessary to divide the log into sections of a dimension and shape to best disclose the defective wood and permit the removal of black knots and bark in the most efficient and thorough manner, compatible with the quality of chips it may be desired to produce.

The use of a standard sawmill log haul, log saw, band head saw and carriage, together with their auxiliary equipment, and sometimes followed by an edger, seems to be, at least at the present time, the logical equipment on which to perform the initial breaking down operations.

Use of a Head Rig

However, one might here suggest, for your consideration, the use of a head rig with three circular saws (diameter about 36 inches) and designed to take the least possible kerf, with two of them arranged like the common circular mill, but preceded throughout their path by the other saw, taking a horizontal cut, which would divide the flitch, and thus create two comparatively heavy log sections or cants at each pass.

This would eliminate the necessity of reloading the flitch, for edging, and would have the added advantage of throwing the bark dust away from the log instead of rubbing it into the wood.

It is obvious that the cross sectional area of the cants should be adjusted, and harmonized for the percentage of defect it is desired to remove. This is the secret of economical operation, for, in proportion as the log sections are unnecessarily reduced in size, both the cost of handling and the waste produced in subsequent cleaning operations, will be increased.

The Barker

From the head saw, or edger, the material passes to a barking machine. Perhaps there is no piece of equipment in the wood room which has been the subject of so much experimentation, and of which there are so many types as the barker, for here may occur the largest loss, both in material and labor.

In the machine we will describe, the cants are passed through by means of power driven rolls, the bark surface coming under the operator's line of vision. Suspended from above the work is a large concave cutter-head, driven 3600 r.p.m. from a direct connected motor, and arranged so that it can be tilted angularly and raised or lowered by means of power driven adjustments, with which the operator may control the depth of cut and position of his cutterhead.

In the latest type of machine an additional adjustment is provided, so that the concave cutterhead may be slewed around at an angle, which results in practically shrinking or closing the curve of the cutter, to suit the surface of the log section being barked.

The controls for these various adjustments are concentrated in two levers, by means of which the operator can control all functions of the machine with approximately the same effort used in driving an automobile or an airplane. The controls also permit him to stop and back up the feed, to remove rotten wood or clean out fissures.

If one could imagine a creature of Paul Bunyan's stature, pushing a stick backward and forward with one hand, while with the other he holds above it a cutterhead, absorbing the power of fifty or seventy-five horses, which he can dexterously flip around at any angle, fitting it to the diameter of the log, the while, following the undulations and taper, one can form a conception of the picture the designers of this machine had in mind.

Knot Removal

After barking, the wood may be transferred to positions where hard black knots, and dirty ends can be removed, by means of drilling machines and saws.

In the knot boring machine illustrated the material is carried on dead rolls and pushed along, or rolled over, by hand, to approximately position it beneath the drill, then the flexible arm carrying the borer is swung into line, and forced down by means of a power feed which is actuated and controlled by the operator's foot pedal.

In certain plants where the cleanest possible chips are desired, the log sections are from this point carried over a slowly moving apron conveyor, where there is opportunity for inspection, and removal by hand, of the last vestige of defects.

There is a field here for development of portable electric driven tools, with which to perform the final touching up operations in a more efficient manner than possible with the hand axes in vogue at present.

Before delivery to the chipper, the material is sometimes given a bath, or passed through a washer containing high pressure water nozzles, for removal of any dust, clinging to the surface.

The design of wood room equipment is moulded by the perpetual cry of the age, which continually asks for more highly mechanized equipment. Therefore, we can predict further changes and improvements, probably in both methods and equipment, and as fast as money is available to carry them out.

Erving Paper Mills To Build

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., August 7, 1934.— P. J. Kennedy, Jr., of this city has been awarded the contract for erecting an addition to the Erving Paper Mills at Erving, 80x80 feet in size, of steel and concrete two stories in height. The increasing business of the company called for the addition. The company makes a high grade line of paper napkins and tissue specialties among its products.

* Presented at the Spring Meeting of the Pacific Section of the Technical Association of the Pulp and Paper Industry, Seattle, Wash., April 6 and 7, 1934.

[1] Chief Engineer, Stetson-Ross Machine Company, Seattle, Wash.

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C., for 10 cents each. Send currency, not stamps.

Paper Specialties

Wallboard. Evelyn Hurden, Alfred P. Hurden and Stephen E. Beeson. Brit. pat. 398,649 (Sept. 21, 1933).—Wallboard comprises a sheet of asbestos cement to which is attached a facing of fibrous material, *e.g.*, paper, cardboard, with an intermediate sheet of fibrous material which is corrugated or indented to form cavities. The sheets are preferably united by waterproof glue.—A. P.-C.

Parchmentized Paper or Pulp. Robert B. MacMullin and Wesley K. McCready assignors to The Mathieson Alkali Works. Brit. pat. 399,725 (Oct. 12, 1933).—Fibrous cellulose is parchmentized or gelatinized by subjecting to the action of a sodium, ammonium, or potassium salts, *e.g.*, sodium iodide, potassium nitrate, dissolved in liquid ammonia in concentration and for a time limited to avoid complete dispersion of the cellulose. In an example paper (pulp) is parchmentized in a liquid ammonia solution of ammonium thiocyanate, ammonium chloride, ammonium nitrate or sodium nitrate at—34° to 30°C. The gelatinized product may be used as moldable cellulose plastic or to produce leather-like paper products. Swollen products may be ground to give material suitable for filter paper or sanitary pads.—A. .C.

Manufacture of Parchment, Imitation Parchment and Glassine Papers. Papyro. Papeterie 56; 126-133 (Feb. 10, 1934).—Practical operating directions.—A. P.-C.

Means for and Method of Making Grooving Fibrous Board. George C. Snyder assignor to The Guardian Trust Co. U. S. pat. 1,940,106 (Dec. 19, 1933).—A bevel groove is cut in the surface of a board by means of a pair of rotary coacting cutters placed at an angle to the board. On the opposite side of the board there is a backing roll having a groove wider than the space between the actual points of contact of the two cutters with the surface of the board.—A. P.-C.

Taped Paper Board. Joshua Wagner assignor to Diagonal Corrugated Patent Corp. U. S. pat. 1,945,624 (Feb. 6, 1934).—In a paper board made up of superposed sheets, a tape strip is interleaved between certain of the sheets and runs along a side edge of the paper board and projects sideways beyond the edge.—A. P.-C.

Drying Pulp Board. Ewald Siempelkamp. Brit. pat. 397,735 (Aug. 31, 1933).—Pulp board containing binding agents is dried by subjecting to a temperature below that at which binding occurs, while compressed to the desired ultimate thickness, and then applying a higher temperature to effect binding under pressure. In the first stage the temperature is above the boiling point of water, and the duration of the second stage may be sufficient for complete polymerization of the binder.—A. P.-C.

Method of Manufacturing Artificial Lumber. Horatio W. Brown and Cyrus J. Taylor assignors to Bemis Industries, Inc. U. S. pat. 1,931,570 (Oct. 24, 1933).—Excelsior is formed into a continuous uniform mat by uniformly distributing it in a passage under air pressure. The mat is gradually and partially compressed, impregnated with a binding solution, and held under pressure till the binder has set at least partially.—A. P.-C.

Fireproof Wallboard. John A. Wiener and John B. Harmon. U. S. pat. 1,937,679 (Dec. 5, 1933).—A wallboard is formed with a base including fibers and mica, impregnated with ammonium sulphate, borax and zinc chloride, which serve as fireproofing agents of successively higher melting points.—A. P.-C.

Hard Vegetable Fiber Product of High Strength and Process of Making Same. Robert M. Boehm assignor to Masonite Corp. U. S. pat. 1,941,536 (Jan. 2, 1934).—A product of great dry and wet strength is made by subjecting a moist mass of vegetable fiber having sufficient non-cellulose content to bond the fibers together to pressure and heat until dry; and then subjecting it with a drying oil (in quantity less than one-half that which is necessary to saturate the pressed mass) to highly heated air for a sufficient time to greatly increase the modulus of rupture of the material.—A. P.-C.

Playing Cards. François du Four. Brit. pat. 396,254 (Aug. 3, 1933).—The cards are made by coating a sheet of paper or cardboard bearing the card figures with a composition comprising at least one cellulose ester or ether, together with filling, coloring or plasticizing substances. The cellulose compound may be applied as a solution in acetone, amyl acetate, butyl alcohol, ether, etc., to which may be added filling or glazing materials, plasticizers, diluting liquids having no solvent action on the cellulose esters or ethers. The slipping quality is increased by adding Japan wax, montan wax, carnauba wax, etc., in colloidal state or in solution.—A. P.-C.

Coating Paper. Cyril A. Chester and Raymakers Syndicate Ltd. Brit. pat. 396,810 (Aug. 14, 1933).—Waxed paper is manufactured by depositing wax in a liquid film upon the surface of a flotation medium at such a temperature as to maintain the wax film in liquid form and applying the paper to the surface of the medium so as to remove the wax film therefrom. The wax, *e.g.*, white wax, may be dissolved, *e.g.*, in gasoline, and used at normal temperature, or the process may be conducted at higher temperatures, *e.g.*, 90° F., when using paraffin wax dissolved in gasoline.—A. P.-C.

Compound Paper and Fabrics. Julio H. Hughes and Julio R. Hughes. Brit. pat. 400,584 (Oct. 23, 1933).—Sheets of paper, *e.g.*, newspapers, magazine sheets or fabric or asbestos, are coated with glue, starch, dextrin, etc., to make them (partly) nonabsorbent, dried, adhesively coated, *e.g.*, with size or glue, superposed and compressed to form a wood substitute.—A. P.-C.

Paper. Weberei Ebnat A.-G. and Textilwerke Horn A.-G. Brit. pat. 399,677 (Oct. 12, 1933).—A paper-like product capable of being written on is made by chemically treating a cellulose fabric, calendering, swelling, impregnating with waterproofing material and high pressing under raised temperature. In the example, cotton fabric is treated with caustic potash, bleached, calendered, treated with sulphuric acid, mercerized and hot-pressed.—A. P.-C.

Cigarette Paper. Louis P. Schweitzer. Fr. pat. 756,094 (Dec. 14, 1933).—The paper is made resistant to the action of water by impregnation with a resin, with or without a substance of the nature of wax. The resin and wax are applied in solution in a volatile solvent such as carbon tetrachloride, acetone or benzene.—A. P.-C.

Process for the Manufacture of Duplex or Multiplex Papers. Namlooze Vennootschap de Bataafache Petroleum Maatschappij. Fr. pat. 752,278.—Waterproof and moistureprof duplex and multiplex papers are produced by uniting two or more sheets by means of a suitable paste (casein, gum, starch, gelatin, dextrin, rubber, rosin, etc.) containing paraffin in the form of a stable emulsion.—A. P.-C.

Emery and Sand Paper. Behr-Manning Corp. Brit. pats. 378,014 (July 28, 1932) and 398,907 (Sept. 25, 1933).—*No. 378,014*—In manufacturing abrasive-coated paper, the grains of abrasive, as they fall onto the adhesive-coated sheet, pass through an electric field whereby they are separated and also turned so that the sharpest points are outwardly directed on the sheet. *No. 398,907*—The grains of abrasive are stratified according to size.—A. P.-C.

A Modern Creping Machine. Anon. Mon. Papeterie Belge 14: 108-109 (Feb., 1934).—A brief description of a machine for creping paper (and more particularly kraft paper) designed and constructed by Radebeular Machinenfabrik Aug. Koebig, Radebeul near Dresden, Germany.—A. P.-C.

Translucent Paper. Fred O. Reiss assignor to Aladdin Industries, Ltd. Brit. pat. 397,550 (Aug. 28, 1933).—Paper with a high alpha-cellulose content is impregnated with a glyptal-type artificial resin to form a translucent, heat-resistant paper, *e.g.*, for shades of incandescent mantle lamps. The paper is made from spruce chips digested with sulphurous acid, blown and washed, sufficient beta- and gamma-cellulose, *e.g.*, 5 per cent being left to act as binding medium and no size being used.—A. P.-C.

The Waterproofing of Paper. James Strachan. Paper Maker & Brit. Paper Trade J. 87: TS49-50 (Feb. 1, 1934).—A very brief discussion, giving an outline of the early history of waterproofing paper in England, a classification of water-resistant and waterproof papers, and indications on the choice of water-resistant and waterproofing papers.—A. P.-C.

Removal of Static Electrical Charges from Paper. J. Rathier. Papier 37: 83-84 (Jan., 1934).—Static electricity was effectively discharged from rolls of paper 750 mm. long and 600 mm. in diameter by exposing the end of the roll to the action of ultra-violet rays for 10 min. at a distance of 1 m. from a mercury-arc lamp. Exposure for such a short period did not affect the color of the paper.—A. P.-C.

Device for Treating Paper Articles, Such as Cups, Etc., with Paraffin. Papeteries Navarre. Fr. pat. 750,036.—The hot liquid paraffin is sprayed on by means of a compressed air nozzle. A chamber or bell is provided in the compressed air line. The chamber has a two-way cock, connecting it alternately with the compressed-air supply and with the nozzle. The cock is operated automatically by placing the article to be paraffined in position to be sprayed. As the amount and pressure of air in the bell are constant, this ensures of a uniform amount of paraffin being sprayed on each article.—A. P.-C.

Copying Papers. Soc. Anon. des Anciens Etablissements Braunstein Frères. Fr. pat. 751,410 (Sept. 4, 1933).—Paper is impregnated with a fatty substance before applying the ink, or the fatty substance, *e.g.*, stearic acid, is added to the pulp. A soluble stearate may be used and decomposed by oxalic acid.—A. P.-C.

Laminated Sheet Material. Chester E. Beecher assignor to The Glassine Paper Co. U. S. pat. 1,936,375 (Nov. 21, 1933).—A transparent, grease and moistureproof laminated sheet material consists of supercalendered sheets of greaseproof paper, joined by an intermediate film of wax substantially confined to the inner faces of the sheets.—A. P.-C.

Treatment of Glassine Paper. Roy C. Charron and Willard E. Swift assignors to United States Envelope Co. U. S. pat. 1,938,133 (Dec. 5, 1933).—Glassine paper or the like, rendered transparent by high hydration or heavy calendering, is first softened to improve its texture, and a film of nitrocellulose is then deposited on its surface to counteract the impairment of its transparency by the softening. The softening may be effected by a glycerin bath or the like.—A. P.-C.

Material Containing Parchmentized Fiber and Process for its Manufacture. E. Strawn. Belg. pat. 397,895 (Aug. 31, 1933).—A sheet of unsized water-repellent paper is treated with a coating that embeds itself in the body of the sheet, and the latter is parchmentized. The product is suitable for artificial leather.—A. P.-C.

Roofing Felt Raw Materials and Quality Control. A. O. Braggs. Paper Ind. 15: 699-703 (March, 1934).—A brief explanation of the various grades of rags used for roofing felt manufacture, of their preparation and of the control of manufacturing operations.—A. P.-C.

Sheet Material Suitable for Use as a Wall Covering. Louis C. Fleck assignor to Paper Patents Co. U. S. pat. 1,936,355 (Nov. 21, 1933).—An embossed cellulosic sheet is coated with a dry and highly flexible waterproof protective material comprising a shellac base which has been emulsified with a relatively small quantity of rubber latex (suitably not over 4 per cent of the quantity of the shellac).—A. P.-C.

Insulating Material and Process for Making the Same. Emil C. Loetscher. U. S. pat. 1,938,917 (Dec. 12, 1933).—A composite insulating material is formed of a number of interior layers of kraft paper impregnated with a phenol condensation product, intermediate layers of a mixture of equal parts of wood flour and resin between the layers of paper, and outer layers of thinner surface paper. The whole is reduced to a dense hard mass by the combined action of heat and pressure.—A. P.-C.

Impregnated Fibrous Block. Gilbert J. Ward assignor to Cheesman-Elliott Co., Inc. U. S. pat. 1,941,769 (Jan. 2, 1934).—A heat and sound insulating fibrous board or block comprises a compacted, loosely associated fibrous material, such as "Celotex," the exterior faces being substantially uniformly impregnated to a substantial depth with a relatively hard asphalt in such a way as to leave the texture of the original surface substantially unchanged and to leave an unimpregnated portion at the center of the board or block.—A. P.-C.

Colored Roofing Granule. Henry R. Gunlach assignor to Central Commercial Co. U. S. pat. 1,943,525 (Jan. 16, 1934).—Mineral granules suitable for use on composition roofing are colored by attaching pigments to the granules with a waterproof cement comprising a mixture of phosphoric acid, a filler and zinc oxide.—A. P.-C.

Sheet Material Suitable for Roofing. Albert C. Fischer assignor to Philip Carey Manufacturing Co. U. S. pat. 1,924,047 (Aug. 22, 1933).—A foundation sheet is coated with a dense waterproofing mastic such as an asphalt or polymerized oil composition, and over the latter there is applied a water-soluble protective layer such as sodium silicate.—A. P.-C.

Roofing Material. Carl J. Pater assignor to Philip Carey Manufacturing Co. U. S. pat. 1,932,144 (Oct. 24, 1933).—A foundation portion such as rag felt carries an exposable surface of weather-resisting material such as asphalt and mica, and on its opposite side is provided with cellular heat-insulating material such as granular cork.—A. P.-C.

Fabricated Roofing Elements. Lester Kirschbraun assignor to The Patent and Licensing Corp. U. S. pat. 1,950,032 (March 6, 1934).—The butt portion of the element is face-coated with blown asphalt, and the edge portion is coated with dried aqueous emulsion of low melting-point asphalt with a dispersing agent.—A. P.-C.

Machine and Method for Producing Roofing. Robert B. Levis assignor to Bird & Son, Inc. U. S. pat. 1,928,835 (Oct. 3, 1933).—Roofing elements are produced from a strip of prepared roofing by applying to the latter overlaid pattern stripes of weatherproof liquid adapted to set, and, simultaneously with the application of the pattern, scoring the strip along lines disposed within the pattern stripes.—A. P.-C.

Safety Papers. James Strachan. Paper Maker & Brit. Paper Trade J. 86: TS161-162 (Sept. 1, 1933).—The principal methods used for making modern safety papers are indicated.—A. P.-C.

Treating Fiberboard, Etc. Ernest E. M. Payne. Brit. pat. 394,019 (June 22, 1933).—Fiberboard, wood pulp, etc., is treated successively with a solution of an acid phosphate of a metal forming an insoluble phosphate, *e.g.*, calcium, magnesium, aluminum, zinc, iron, chromium, and with a solution that reacts with the acid phosphate to precipitate an insoluble phosphate within the cell walls of the material. Thus, a zinc phosphate that is resistant to fire and to animal and vegetable life may be applied by soaking the material in a solution of an acid phosphate of zinc and then in a solution containing ammonium dihydrogen phosphate or diammonium hydrogen phosphate. After precipitation the product may be treated with a solution of sodium aluminate and (or) silicate with or without the addition of colloidal substances such as carragheen, cellulose solutions or viscose.—A. P.-C.

Waterproofing Paper. Papeteries Navarre. Brit. pat. 395,197 (July 13, 1933).—Paper is waterproofed by passing a band thereof upwardly through a bath of viscose and then successively through baths for coagulating and precipitating the viscose, the band being finally washed and dried. Before coagulation a number of bands, one or some of which may be of fabric, may be impregnated with viscose and superposed, or compound sheets comprising impregnated and unimpregnated bands may be prepared.—A. P.-C.

Treating Pulp for Paper Manufacture. Mone R. Isaacs. U. S. pat. 1,929,432 (Oct. 10, 1933).—Pulp is beaten in liquor containing a protein material such as casein, slaked lime and a fluoride such as sodium fluoride in order to produce a water-resistant product. Soap and a light mineral oil also may be added.—A. P.-C.

Tracing Material. Waldemar Schwalbe and Otto Schnecko assignors to Du Pont Cellophane Co. U. S. pat. 1,934,824 (Nov. 14, 1933).—A tracing sheet comprises cellulose hydrate coated with a material such as a nitrocellulose lacquer which is resistant to the action of writing fluids and which contains a finely divided filler such as chalk, starch or talc which is capable of retaining writing fluid lines.—A. P.-C.

Paper. Harry H. Nelson and Guillaume Becker. Fr. pat. 42,723 (Sept. 14, 1933); addition to 735,525.—The cellulose thiosulphocarbonate is precipitated on the fibers in a non-coagulated soluble form by means, *e.g.*, of a solution of sodium chloride, sodium sulphate or ammonium chloride. The alkali cellulose for the manufacture of the thiosulphocarbonate is made at a low temperature. The caustic soda is made at a concentration higher than that required and diluted by the addition of ice to obtain the solution at a low temperature. A small amount of rosin soap or castor oil soap is added to the thiosulphocarbonate.—A. P.-C.

Waterproofing Paper. Manifattura Italiana Carte e Affini. Fr. pat. 753,158 (Oct. 9, 1933).—Paper for making containers for food products is treated with colloidal solutions which have been purified by treatment with wood charcoal, alkali bromides and gelatins. The composition may contain nitrocellulose in scales, denatured alcohol and solvents for the nitrocellulose.—A. P.-C.

Safety Paper. Justus C. Sanburn assignor to Strathmore Paper Co. U. S. pat. 1,938,543 (Dec. 5, 1933).—During the manufacture of a web from paper-making material there is incorporated with the latter a multiplicity of detecting-fibers of a certain color and a multiplicity of other fibers of the same certain color but treated differently so that, when the finished paper is treated with certain reagents such as ink removers, one only of the kinds of colored fiber used will change its appearance. The paper is suitable for documents to prevent their alteration.—A. P.-C.

Waterproofing Paper. I. G. Farbenindustrie A. G. Fr. pat. 753,510 (Oct. 18, 1933).—Paper is waterproofed by impregnation with an aqueous agent containing a substance of the nature of an aliphatic acid of at least 8 carbon atoms, a salt soluble in water of a polyvalent basic metal giving rise to an insoluble salt with the acid, and a protective colloid soluble in water of the formula $RO(C_2H_4O)_xH$ or $RO(CH_2CHOHCH_2O)_xH$ (in which x is a whole number equal to or higher than 2 and R is an organic radical containing at least 6 carbon atoms.—A. P.-C.

Waterproofing Paper. Papeteries Navarre. Fr. pat. 42,521 (Aug. 4, 1933); addn. to 720,333.—Coagulents other than formaldehyde are used in the process of the main patent, *e.g.*, lime or salts thereof.—A. P.-C.

Adhesive Tape. Kenneth L. Osmum assignor to Union Selling Co. U. S. pat. 1,933,026 (Oct. 31, 1933).—A paper web is impregnated with a solution of ammonium monophosphate and formaldehyde to which a solution of ethylene glycol and mono-ethyl ether acetate, triethanolamine and diethylene glycol has been added, and a coating of rubber latex is subsequently applied.—A. P.-C.

Fibrous Web Artificial Leather Manufacture. Milton O. Schur assignor to Brown Co. U. S. pat. 1,924,573 (Aug. 29, 1933).—A water-laid web is formed of interfelted fibers, mainly comprising chemically pulped spruce with a surface of chemically pulped birch and gelatinized cellulose.—A. P.-C.

Antiseptic Absorbent Material. Regina J. Woody and McIlver Woody. U. S. pat. 1,935,170 (Nov. 14, 1933).—Pulp is formed into a web which is transferred to a drying roll, and while the web is in contact with this roll antiseptic material, such as boric acid, is distributed over its exposed surface in the presence of sufficient moisture to cause the antiseptic to cement itself directly to the fibers of the web.—A. P.-C.

Paper and Other Fibrous Sheet Material Hood Cap. Wilbur D. Wright assignor to Oswego Falls Corp. U. S. pat. 1,933,466 (Oct. 31, 1933).—A sheet fibrous material hood cap (*e.g.*, for milk bottles) carries a quick-setting hard water-resistant plastic binder composition that embodies a small percentage of sulphur.—A. P.-C.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 4, 1934

CIGARETTE PAPER

P. J. Schweitzer, Pr. Hayes, Marseilles, 10 cs.; Champagne Paper Corp., Champlain, Havre, 675 cs.

WALL PAPER

F. J. Emmerich, Laconia, Liverpool, 2 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., American Farmer, London, 2 bls.

NEWS PRINT

Star Co., Markland, Liverpool, N. S., 364 rolls; N. Y. Tribune, Markland, Liverpool, N. S., 1529 rolls; World Telegram, Markland, Liverpool, N. S., 633 rolls; Bridgeport Herald Corp., Markland, Liverpool, N. S., 25 rolls; Jay Madden Corp., Scanstates, Kotka, 630 rolls; Lunham & Reeve, Inc., Scanstates, Kotka, 85 rolls; ———, Bergensfjord, Oslo, 458 rolls; Clinton Paper Co., Bergensfjord, Oslo, 121 rolls.

PRINTING PAPER

E. Dietzgen & Co., Estrella, Marseilles, 13 cs.

WRAPPING PAPER

Walker Goulard Plehn Co., Pr. Harding, Hamburg, 382 rolls, 399 bls.

DRAWING PAPER

H. Reeve Angel & Co., Inc., American Farmer, London, 4 cs.; Favor Ruhl & Co., Champlain, Havre, 1 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., American Farmer, London, 4 cs.

SURFACE COATED PAPER

Gevaert Co. of America, Nubian, Antwerp, 68 cs.; Chas. Happel, Deutschland, Hamburg, 6 cs.

METAL COATED PAPER

K. Pauli Co., Deutschland, Hamburg, 4 cs.

COATED PAPER

W. J. Byrnes, Aquitania, Southampton, 3 cs.

PHOTO PAPER

Medo Photo Supply Co., Aquitania, Southampton, 2 cs.

TISSUE PAPER

F. C. Strype, Laconia, Liverpool, 4 cs.; Jay Madden Corp., Deutschland, Hamburg, 5 cs., 18 bls.

DECALCOMANIAS

Phoenix Shipping Co., Bremen, Bremen, 2 cs.; Sellers Transportation Co., Bremen, Bremen, 13 cs.

MISCELLANEOUS PAPER

Corn Exchange Bank Trust Co., Sanyo Maru, Kobe, 25 cs.; Irving Trust Co., Sanyo Maru, Kobe, 18 cs.; National City Bank, Sanyo Maru, Yokohama, 8 cs.; Keller Dorian Paper Co., Pr. Hayes, Marseilles, 5 cs.; Selsi Co., Champlain, Havre, 2 cs.; ———, Nubian, Antwerp, 5 cs.; Rohner Gehrig & Co., Nubian, Antwerp, 4 cs.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Black Eagle, ———, 162 bls. bagging; E. J. Keller Co., Inc., Black Eagle, ———, 85 bls. paper stock; N. Schwab & Son, Black Eagle, Antwerp, 59 bls. cotton waste; Darmstadt Scott & Courtney, Black Eagle, Antwerp, 300 bls. bagging; Castle & Overton, Inc., Quaker City, Dundee, 53 bls. paper stock; E. J. Keller Co., Inc., Quaker City, ———, 31 bls. paper stock; ———, Pipestone County, Dunkirk, 60 bls. rags; Ayres W. C. Jones Co., Pipestone County, Havre, 23 bls. cotton waste; A. W. Fenton, Inc., Exilona, Barcelona, 264 bls. rags; E. J. Keller Co., Inc., Estrella, ———, 54 bls. bagging; E. J. Keller Co., Inc., Estrella, ———, 109 bls. rags; ———, American Farmer, London, 89 bls. rags; Banco Coml Italiane Trust Co., Clara C., Trieste, 34 bls. twines; H. W. T. Mali, Tai Ping, Kobe, 70 bls. rags; E. J. Keller Co., Inc., Gourko, ———, 119 bls. paper stock; E. J. Keller Co., Inc., Excalibur, ———, 137 bls. paper stock; E. J. Keller Co., Inc., Minnequa, ———, 327 bls. paper stock.

BONE GLUE

———, Deutschland, Hamburg, 240 bags.

CASEIN

D. C. Andrews & Co., Deutschland, Hamburg, 50 bags.

CHINA CLAY

Whitaker Clark & Daniels, Laconia, Liverpool, 200 bags.

WOOD PULP

Lagerloef Trading Co., Scanstates, Kotka, 360 bls. sulphate, 72 tons; Lagerloef Trading Co., Scanstates, Helsingfors, 3529 bls. sulphite, 595 tons; Lagerloef Trading Co., Scanstates, Helsingfors, 127 bls. mechanical pulp, 25 tons; J. Andersen & Co., Bergensfjord, Oslo, 2300 bls. sulphite; The Borregaard Co., Inc., Bergensfjord, Oslo, 336 bls. sulphate; Chemical Bank Trust Co., Bergensfjord, Oslo, 300 bls. sulphite; Castle & Overton, Inc., Deutschland, Hamburg, 1270 bls. wood pulp, 254 tons; Bank of N. Y. Trust Co., Deutschland, Hamburg, 510 bls. wood pulp, 102 tons.

WOOD PULP BOARDS

Lagerloef Trading Co., Scanstates, Kotka, 108 bls.

PULPWOOD

Polarus Shipping Co., Dagali, St. Peters, N. B., 1438 cords.

BOSTON IMPORTS

WEEK ENDING AUGUST 4, 1934

H. P. Lambert, Pipestone County, Havre, 21 bls. rags; ———, Pipestone County, Havre, 150 bls. bagging; Brown Bros. Harriman & Co., American Farmer, London, 118 coils old rope; ———, Laconia, Liverpool, 319 bags hide cuttings; G. F. Malcolm, Inc., Laconia, Liverpool, 3 cs. tissue paper; Oxford University Press, Laconia, Liverpool, 3 cs. printing paper.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 4, 1934

Gilman Paper Co., Markland, Liverpool, N. S., 4262 rolls news print; Phila. National Bank, Quaker City, London, 31 bls. rags; J. Andersen & Co., Quaker City, Bremen, 126 bls. wood pulp, 25 tons; ———, Quaker City, Leith, 122 bls. rags; J. Wallworth & Sons, Quaker City, Dundee, 15 bls. paper stock; Castle & Overton, Inc., Pipestone County, Havre, 59 bls. rags; Phila. National Bank, Pipestone County, Havre, 48 bls. rags; Phila. National Bank, Pipestone County, Dunkirk, 133 bls. rags; Lagerloef Trading Co., Scanstates, Kotka, 1790 bls. sulphate, 298 tons; Lagerloef Trading Co., Scanstates, Kotka, 1485 bls. sulphite, 297 tons; Lagerloef Trading Co., Scanstates, Helsingfors, 377 bls. mechanical pulp, 76 tons; Gottesman & Co., Inc., Scanstates, Helsingfors, 625 bls. mechanical pulp, 127 tons; Amtorg Trading Corp., Scanstates, Leningrad, 67 bls. rags; E. J. Keller Co., Inc., Binnendyk, ———, 75 bls. paper stock; E. J. Keller Co., Inc., City of Flint, ———, 383 bls. paper stock; E. J. Keller Co., Inc., Black Tern, ———, 630 bls. paper stock; Bulkley Dunton & Co., Eiffel, ———, 400 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 4, 1934

Bulkley Dunton & Co., City of Baltimore, ———, 800 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING AUGUST 4, 1934

Chase National Bank, Getsuyo Maru, Kobe, 400 bls. bagging; Bulkley Dunton & Co., Bockenheim, ———, 1250 bls. wood pulp.

Quebec Stumpage Fees Reduced

MONTREAL, Que., July 30, 1934—Hon. Honore Mercier, Minister of Lands and Forests for Quebec Province, announces that stumpage fees in the province will be substantially reduced for the 1934-5 season. The reduction will apply to both sawing and construction woods and it is hoped that it will give an added spurt to production of sawed timber for export to Great Britain and European countries, as well as assisting the building trades.

New rates vary from $2.50 per 1000 feet for pine, oak and walnut, to $1.50 for spruce, fir, cedar, etc., and to $1.35 for timber on areas damaged by fire. Final reports on this year's cut have not yet been received, but there is every promise of an increase. Last season's cut approximated 800,000,000 board feet.

Suspend Reduced Rates on Pulp

DAYTON, Ohio, August 6, 1934.—Efforts of railroads to secure all or part of the wood pulp shipments from Sweden and from the Pacific coast to Miami Valley paper mill cities were sidetracked again Monday when the interstate commerce commission suspended railroad rate reductions of 4½ cents per 100 pounds on imported pulp.

The suspension was granted until February 12 in response to protests filed by west coast pulp manufacturers who claimed they were being discriminated against in the reductions as the lower rates were not designed to apply to their particular grade of pulp.

A public hearing on the reduction will be held in Washington September 6 at which the Hamilton and Cincinnati Chambers of Commerce and the Middletown Civic association will be represented.

One of the largest paper mills to be affected by the reductions is the Champion Coated Paper company of Hamilton. According to Paul Cook, assistant traffic manager, the Champion has been advocating the reduction for both the Swedish and the Pacific coast pulp producers for a long time.

The reductions were asked by the railroads so they could compete on more even terms with the nation's waterways which have been hauling the paper pulp at lower rates than the railroads have been permitted to offer.

The Swedish pulp, a great deal of which is used at the Champion, is transported as far as possible by water and then trucked the remainder of the distance. Should the railroad rate reduction be permitted by the interstate commerce commission the railroads would haul the pulp directly from the eastern ports.

Unique Iron Body Gate Valve "Cut-out"

An unusual piece of valve literature is the twelve inch cut-out replica of a Jenkins Standard Iron Body Gate Valve recently prepared by Jenkins Bros., 80 White street, New York.

This cut-out is next best to having the real Jenkins Gate for inspection, as it provides an exact reproduction of both the exterior and the mechanism of a big, heavy Jenkins Valve.

An accurate listing of the features of Jenkins design and construction also is given in a form which makes it convenient for valve users to follow the suggestion to "compare point-for-point with other good valves and let your own judgment say which one is best."

William F. Norton Dead

[FROM OUR REGULAR CORRESPONDENT]

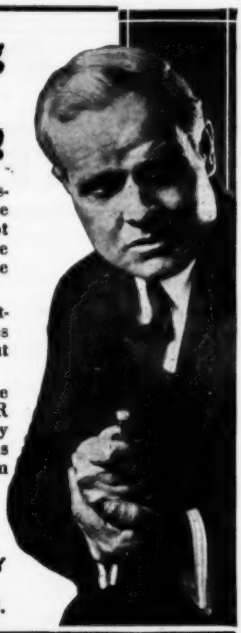
BOSTON, Mass., August 6, 1934.—Word has been received here of the death of William F. Norton, formerly president, general manager and superintendent of F. E. Norton & Sons, Inc., Henniker, N. H. He had severed his connections with that firm to take a position with a paper mill in Canada, but left there some five months ago. He had called on the trade here in former years in connection with the products of his company, including leather board and counter board, and was highly esteemed. A widow, a son and a daughter are living.

U. S. Envelope Co. Declares Dividend

[FROM OUR REGULAR CORRESPONDENT]

SPRINGFIELD, Mass., August 7, 1934. — The United States Envelope Company of this city has declared a dividend of $3.50 a share on the preffered stock and $2.50 on the common stock of the Company. Both dividends are payable to stockholders of record of August 15.

A 92% Saving in Slime Removal Cost!



At a large eastern mill it was necessary to use acid to clean the slime from a save-all screen. This was not only a slow and laborious job, but the acid had its detrimental effect on the copper screen.

MAGNUS SLIME REMOVER, costing 8% of the acid price, now removes all slime in one operation—without any damage to the copper.

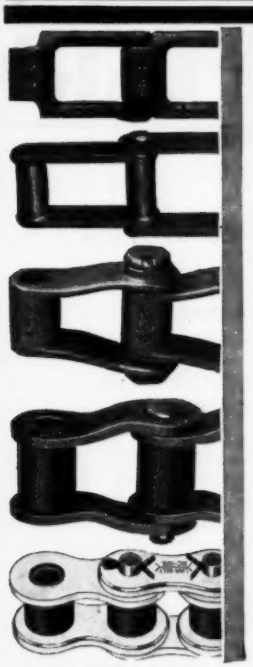
These are the kind of savings the use of MAGNUS SLIME REMOVER can mean in your mill. It is highly effective—quickly penetrates, loosens and removes all slime deposits from piping and equipment.

Write for our literature and full details.

MAGNUS CHEMICAL COMPANY
Manufacturers of Cleaning Materials
24 South Avenue Garwood, N. J.

Magnus SLIME REMOVER

LINK-BELT Chains



PROMAL
A stronger, longer-wearing metal for cast chains. Ordinarily lasts twice as long as malleable iron, and costs but a fraction more.

MALLEABLE IRON
Link-Belt Malleable Iron Chains have been the standard since 1875, when the first detachable link chain, invented by William D. Ewart, was put on the market by this Company.

STEEL
A complete line of Steel Link-Belt, "SS" Class, Silverlink finished steel, and other steel chains are made by Link-Belt.

This mark >———< identifies genuine Link-Belt Chain. It is your guarantee.

A type and size for every need.

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SUPERIOR CHEMICALS

Rosin Size · Satin White Industrial Chemicals

PMC

PAPER MAKERS CHEMICAL CORPORATION
KALAMAZOO, MICHIGAN
PLANTS IN ALL PAPER-MAKING AREAS
Distributor of Hercules Wood Rosins and Steam-distilled Pine Oils

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, August 8, 1934.

During the past week trading in the local paper market was only moderately active. There are a number of inquiries around, however, for practically all the various standard grades of paper and the outlook for the near future is promising. Prices are generally holding to formerly quoted levels.

The position of the news print paper market is practically unchanged. With a net increase of 387,607 lines, or about 6 per cent, the aggregate volume of advertising placed in the nine New York and two Brooklyn papers continued higher in July than in the corresponding month last year, according to Media Records.

Conditions in the fine paper market are fairly satisfactory, although the prevailing demand is listless. Tissues are moving in moderate volume. The kraft paper market is steady, with Summer specialties in excellent request. The paper board market is dull.

Mechanical Pulp

The ground wood pulp market is pursuing the even tenor of its way. Manufacturing operations are practically keyed to consumption and there are no undue accumulations. The statistical position of the industry continues strong and the long, dry Summer has had little effect upon the situation. Prices are holding to schedule.

Chemical Pulp

Paper mill demand for the various grades of domestic and imported chemical pulp is restricted, due mainly to the usual quietness experienced during the mid-Summer holiday period. Shipments from the Pacific Coast are arriving in greater volume since the termination of the longshoremen's strike. Prices are steady.

Old Rope and Bagging

The old rope market continues quiet. Demand for both domestic and foreign old manila rope is light. Small mixed rope is moving slowly. Prices remain unchanged. The bagging market is irregular. Gunny bagging is moderately active. Scrap bagging is spotty. Roofing bagging is arousing little interest at present.

Rags

Some improvement is noticed in the domestic rag market. While the request for new cotton rags is light, inquiries for future account are fairly frequent. The export demand for several grades is better, especially for No. 1 white shirt cuttings and fancy shirt cuttings. Foreign exchange is still an important factor in the imported rag situation.

Waste Paper

Sentiment is improving in the paper stock market. With collections curtailed, the lower grades of waste paper are firmer, including strictly folded news and No. 1 mixed paper. No. 1 white news is displaying strength and is now quoted at from $1.10 to $1.20, f.o.b. New York. The higher grades of paper stock are well sustained.

Twine

Most of the business transacted in the local twine market during the past week was along routine lines. There are a number of inquiries around for future requirements and the outlook for the closing months of the year is considered bright. Prices are holding to schedule, in most instances.

Miami Paper Shippers Incorporate

DAYTON, Mass., August 6, 1934.—It was announced Saturday that the Miami Valley Paper Shippers Association, organized several months ago by paper manufacturers of the Miami Valley for the purpose of providing for carload shipments of small orders or members firms, will be incorporated as a non-profit organization.

Officials decided upon this plan as most desirable. The incorporators will be J. J. Hallowell of the Wrenn Paper Company, Middletown; H. M. Stetson, of the Harding-Jones Paper Company; Howard Larsen of the Maxwell Paper Company, Franklin; C. J. Nicols of the P. A. Sorg Paper Company, Middletown: W. W. Winship, of the Oxford-Miami Paper Company, West Carrollton; and Thomas Costelle of the Gardner-Richardson Paper Company, Middletown.

Reports of this association which have been submitted at regular intervals in recent months, have reflected an improvement in the paper manufacturing trade. Up to the first of the past month, the volume of business was shown to have been greatly increased.

Swedish Newsprint Production

Production of news print in Sweden totaled 20,194 metric tons in May, as against 19,811 tons in April and 21,390 tons in May, 1933, according to a report from Trade Commissioner Basil D. Dahl, Stockholm. Output during the first five months of the current year totaled 100,327 tons, an increase of 2,257 tons over the corresponding period last year. Exports during May, according to official statistics, amounted to 17,196 tons, bringing the total for the first five months of the year up to 78,598 tons, as against 72,551 tons during the first five months of 1933.

Exports of news print from Sweden to France during 1933 have been fixed at 14,200 metric tons, as against 12,294 tons and 11,834 tons, respectively, in 1934 and 1933.

Form Judd Box Co.

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., August 7, 1934.—Howard T. Judd, of Greenfield, for the past seven years, salesman for the Judd Paper Company of this city with northwestern Massachusetts as his territory, has organized the Judd Box Company, Inc., at Athol and will remove from Holyoke to Athol soon. Production will be started in a few days.

West Virginia Pulp and Paper Company

230 Park Ave. New York
35 East Wacker Drive Chicago
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Manufacturers of

ENGLISH FINISH SUPERCALENDERED MACHINE FINISHED BOOK and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Mimeograph, Ledger, Cover and Music Papers, Index Bristol, Post Card and Label Papers

High Grade Coated Book

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KRAFT WRAPPING AND KRAFT ENVELOPE

Bleached Spruce Sulphite Pulp, Soda and Kraft Pulp

MILLS:

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MARCY OPEN-END ROD MILLS

for Perfect Beating of Every Type of Stock

FACTS

1. Positively reduce power costs.
2. Absolute control under all conditions.
3. Maximum preservation of initial strength.
4. Preserve full fibre length.
5. Positive separation of fibre bundles.
6. Positively no unbeaten stock by-passed.

By equipping your mill with MARCY ROD MILLS—you reduce upkeep and labor costs—yet produce a product of highest quality.

Specific inquiries are invited.

The MINE and SMELTER SUPPLY COMPANY
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THE DRAPER FELTS

All kinds and styles of Felts for all kinds and styles of Papers.

Write us about your Felt problems and let us help you reduce your Felt Costs—we will call anywhere at any time.

DRAPER BROS. COMPANY

CANTON, MASS.

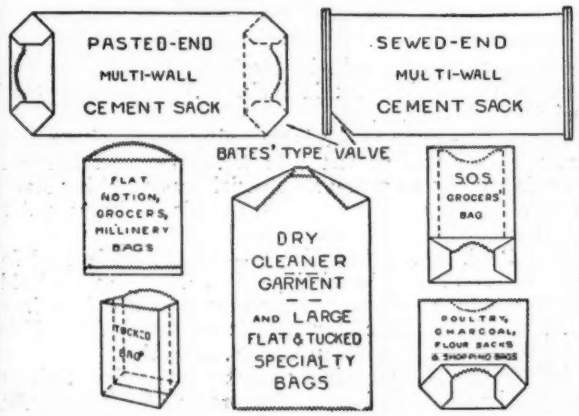
Woolen manufacturers since 1856

POTDEVIN

OVER 60 MODELS OF PAPER BAG

MACHINERY

FOR PLAIN OR PRINTED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BATES' TYPE VALVE
FLAT NOTION, GROCERS, MILLINERY BAGS
DRY CLEANER GARMENT — AND LARGE FLAT & TUCKED SPECIALTY BAGS
S.O.S. GROCERS' BAG

ALSO MULTI-COLOR PRINTING PRESSES - COMPENSATORS - BOTTOMERS - GLUING - PASTING PAPER WAXING MACHINERY, ETC.

POTDEVIN MACHINE CO.

1223 38th STREET BROOKLYN, N. Y., U. S. A.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, August 8, 1934.

BLANC FIXE.—Demand for blanc fixe is moderately active. Prices are holding to formerly quoted levels. The pulp is quoted at from $42.50 to $45 per ton, in bulk; while the powder is selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is rather quiet at present. Shipments against contract are going forward at a seasonal pace. Prices remain unchanged. Bleaching powder is quoted at from $1.90 to $2.15 per 100 pounds, in drums, at works.

CASEIN.—The casein market is slightly easier. Domestic standard ground is now quoted at 12¼ cents and finely ground at 12¾ cents. Argentine standard ground is selling at 12½ cents and finely ground at 13 cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Steadiness prevails in the caustic soda market. Demand is rather restricted. Solid caustic soda is quoted at from $2.60 to $3.10; while the flake and the ground are selling at from $3 to $3.05 per 100 pounds, in large drums, at works.

CHINA CLAY.—The position of the china clay market is practically unchanged. Prices are holding to schedule. Imported china clay is quoted at from $13.50 to $21 per ton, ship side; while domestic paper-making clay is selling at from $5 to $12 per ton, at works.

CHLORINE.—Some improvement transpired in the chlorine market. Demand is fairly persistent and prices are well sustained. Chlorine is quoted at from $2 to $2.25 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market is marking time. Paper making gum rosin is quoted at from $5.35 to $5.50 per 280 pounds, in barrels, at works; wood rosin at $4.35 per 280 pounds, in barrels, and rosin wax size at 5 cents per pound, at shipping points.

SALT CAKE.—Conditions in the salt cake market are fairly satisfactory. Salt cake is still quoted at from $12 to $14 and chrome salt cake at from $12 to $12.50 per ton, at works. Imported salt cake is selling at from $12 to $12.50 per ton, on dock.

SODA ASH.—The soda ash market is fairly active. Contracts shipments are going forward in good volume. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.10; in bags, $1.40, and in barrels, $1.50.

STARCH.—Due to the increased strength of the basic product the starch market is firmer. The contract movement is well up to average. Special paper making starch is now quoted at $3.42 per 100 pounds, in bags; and at $3.69 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—Paper mill demand for sulphate of alumina is fairly persistent. Prices are holding to schedule. Commercial grades are quoted at from $1.35 to $1.50; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is steady. Sulphur is quoted at $18 per long ton on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and nearby carloads the quotation is $21 per ton.

TALC.—Most of the business transacted in the talc market during the past week was along routine lines. Domestic talc is still quoted at from $16 to $18 per ton, in bulk, at eastern mines; while imported talc is selling at from $23 to $30 per ton, on dock.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@	—
Bonds	6.00	@	—
Index	6.00	@	—
Writings—			
Extra Superfine	6.50	@	—
Superfine	6.25	@	—
Tub sized	5.75	@	—
Engine sized	5.50	@	—
Book, Cased—			
S. & S. C.	5.35	@	5.75
S. & S. C. Litho.	5.60	@	6.00
M. F.	5.10	@	5.50
Coated and Enamel	5.90	@	6.55
Coated Litho	5.90	@	6.55
Tissues—Per Ream—			
White No. 1	.82½	@	.85
White No. 2	.67½	@	—
Anti-Tarnish M. G. only	1.00	@	—
Colored	.85	@	—
Kraft	.70	@	—
Manila	.67½	@	.70
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	4.00	@	4.50
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.50	@	3.50
Glassine—			
Bleached	.11	@	—
Unbleached	.09	@	—

(The following Quotations are Delivered New York)

News, per ton—			
Roll, contract	40.00	@	—
Rolls, spot	40.00	@	—
Sheets	45.00	@	—
Kraft—			
No. 1 Domestic	4.75	@	5.00
No. 2 Domestic	3.87½	@	—
Southern	3.87½	@	—
Boards—per ton—			
News	40.00	@	45.00
Chip	37.50	@	40.00
Egl. Mla. Ll. Chip	47.50	@	52.00
Jute Lined Chip	47.50	@	52.00
White Patent Coated	57.50	@	65.00
Binders Boards	67.00	@	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	27.00	@	29.00
Dry	27.00	@	30.00
(F.o.b. Mill)			
No. 1 Domestic and Canadian	24.00	@	29.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—			
Division 1	2.85	@	—*
Division 2	2.80	@	—*
Division 3	2.75	@	—*
Prime Qualities—			
Class 1. All Prime Easy Bleaching	2.25	@	—*
Other Than Easy Bleaching—			
Class 2. Higher Than Standard	2.20	@	—*
Class 3. Standard	2.15	@	—*
Class 4. Lower than Standard	2.10	@	—
(On Dock, Atlantic Ports)			
Kraft No. 1	1.85	@	1.90
Kraft No. 2	1.60	@	1.70
(F.o.b. Pulp Mill)			
Kraft Domestic	1.60	@	2.75
(Delivered)			
Soda Bleached	2.50	@	—

*Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	6.50	@	7.00
Silesias No. 1	4.25	@	4.50
New Unbleached	6.75	@	7.25
New Soft Blacks	3.00	@	3.25
Blue Overall	4.00	@	4.25
Fancy	2.50	@	2.75
Washables	1.75	@	2.00
Mixed Khaki Cuttings	3.00	@	3.25
O. D. Khaki Cuttings	3.75	@	4.00
Men's Corduroy	1.50	@	1.75
New Mixed Blacks	2.50	@	2.75

Old Rags

White, No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.75	@	3.25
White, No. 2—			
Repacked	1.75	@	2.25
Miscellaneous	1.50	@	1.75
Thirds and Blues—			
Repacked	1.50	@	1.75
Miscellaneous	1.25	@	1.50
Black Stockings	2.50	@	3.00
Roofing Rags—			
No. 1	1.10	@	1.25
No. 2	.80	@	.85
No. 3	.70	@	.75
No. 4	.65	@	.70
No. 5A	.60	@	.65

Foreign Rags

New Rags

New Dark Cuttings	1.60	@	1.70
New Mixed Cuttings	1.75	@	1.85
New Light Silesias	3.75	@	4.00
Light Flannelettes	3.75	@	4.00
Unbleached Cuttings	6.50	@	6.75
New White Cuttings	6.50	@	6.75
New Light Oxfords	3.25	@	3.50
New Light Prints	2.75	@	3.00

Old Rags

No. 1 White Linens	7.50	@	8.00
No. 2 White Linens	6.50	@	7.00
No. 3 White Linens	4.50	@	5.00
No. 4 White Linens	2.25	@	2.50
No. 1 White Cotton	4.25	@	4.75
No. 2 White Cotton	3.25	@	3.75
No. 3 White Cotton	2.50	@	2.75
No. 4 White Cotton	1.90	@	2.15
Extra Light Prints	2.00	@	2.25
Ord. Light Prints	1.75	@	1.85
Med. Light Prints	1.55	@	1.65
Dutch Blue Cottons	1.75	@	1.85
French Blue Linens	2.30	@	2.40
German Blue Linens	2.15	@	2.25
German Blue Cottons	1.70	@	1.80
Checks and Blues	1.30	@	1.40
Linsey Garments	1.40	@	1.60
Dark Cottons	1.00	@	1.10
Old Shopperies	.95	@	1.00
New Shopperies	.90	@	1.00
French Blues	1.70	@	1.80

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	1.40	@	1.50
Wool Tares, light	1.20	@	1.30
Wool Tares, heavy	1.20	@	1.30
Bright Bagging	1.15	@	1.25
Manila Rope			
Foreign	2.35	@	2.45
Domestic	2.25	@	2.50
Small Mixed Rope	1.10	@	1.35
New Burlap Cut	2.00	@	2.25
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.70	@	2.80
Ordinary Hard White No. 1	2.15	@	2.25
Hard White No. 2	1.95	@	2.05
Soft White No. 1	1.85	@	1.95
Flat Stock—			
Stitchless	.80	@	.90
Over issue Mag.	.80	@	.90
Solid Flat Book	.65	@	.75
Crumpled No. 1	.60	@	.65
Solid Book Ledger	1.50	@	1.65
Ledger Stock	1.00	@	1.10
New B. B. Chips	.30	@	.35
Manilas—			
New Env. Cut	1.70	@	1.80
New Cuttings	1.35	@	1.45
Print	Nominal		
Bogus Wrapper	.40	@	.50
Container	Nominal		
Old Kraft Machine—			
Compressed bales	1.10	@	1.20
News—			
No. 1 White News	1.10	@	1.20
Strictly Overissue	.65	@	.70
Strictly Folded	.35	@	.45
No. 1 Mixed Paper	.20	@	.25

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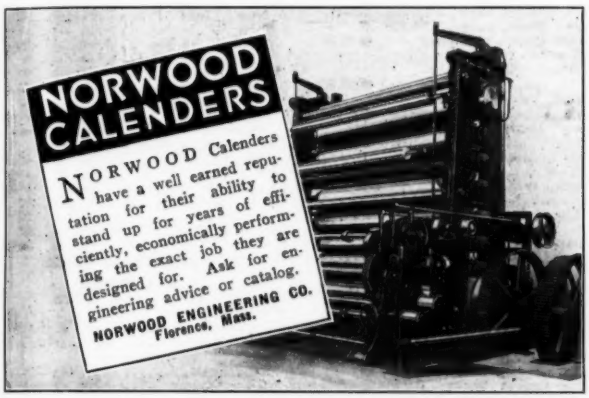
Estimates	Plans and Specifications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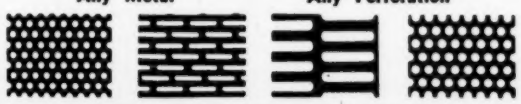

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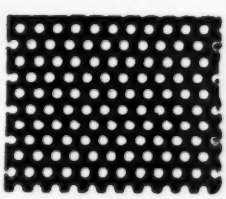

".065" Round

CHARLES MUNDT & SONS

63-65 FAIRMONT AVE. JERSEY CITY, N. J.

Twines

(F. o. b. Mill)

Cotton—			
B. C. 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian, 18 basis	.36	@	.37
Finished Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15½	@	.16½
No. 2	.15	@	.16
Tube Rope—			
4-ply and larger	.09¼	@	.09¾
Fine Tube Rope—			
4-ply	.11¼	@	.11¾
3-ply	.14¼	@	.14¾
2-ply	.14¼	@	.14¾
Paper Makers Twine	.08¼	@	.13¼
Box Twine, 2-3 ply	.14¼	@	.14¾
White Hemp	.13¼	@	.16¾
Java Sisal—			
No. 1 Basis	.11½	@	—
No. 2 Basis	.10½	@	—
New Zealand Sisal	.11½	@	—
Sisal Lath Yarn—			
No. 1	.13½	@	.15½
No. 2	.11½	@	.13½
Manila Twine	.24½	@	.29½

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.50
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.11
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¾	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¾	@	.05¼
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¼	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.05¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	41.00	@	—
Sheets, open	46.00	@	51.00
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.70	@	.80
Solid Books	.60	@	.70
Blanks	1.00	@	1.05
Kraits	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.50	@	.55
Overissue News	.60	@	.70
Old Newspapers—			
No. 1	.50	@	.55
Mixed Papers—			
No. 1	.30	@	.35
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(Delivered Philadelphia)

Bonds	.05-9/10	@	.38
Ledgers	.06 9/10	@	.40
Writings—			
Superfine	10	@	18
Extra Fine	15	@	20
Fine	15	@	26
Fine No. 2	10	@	25
Fine No. 3	.05	@	.06
Book, M. F.	.05¼	@	.06¼
Book, S. S. & C.	.05	@	.07½
Book, Coated	.06½	@	.09
Coated Lithograph	.06¾	@	.08½
Label	.07	@	.11
No. 1 Jute Manila	6.25	@	—
Manila Sul., No. 1	5.25	@	—
Manila No. 2	3.00	@	—
No. 1 Kraft	5.00	@	—
Southern Kraft	4.75		—
Common Bogus	.03	@	.04½
News Print Rolls	46.00	@	55.00
Straw Board	40.00	@	45.00
News Board	50.00	@	—
Chip Board	45.00	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.03½	@	.04
New White, No. 2	.02½	@	.04
Light Silesias	.02½	@	.03
Silesias, No. 1	.03	@	.03½
Black Silesias, soft	.02½	@	.03
New Unbleached	.05	@	.05½
Washable, No. 1	.01½	@	.02
Blue Overall	.03½	@	.04
Cottons—According to grades—			
Washable, No. 2	.02½	@	.03
New Blue	.01½	@	.03
Fancy	.01½	@	.03
New Black Soft	.02	@	.04
New Light Seconds	.01½	@	.02
New Dark Seconds	1.50	@	1.75
Khaki Cuttings—			
No. 1 O.D.	.03	@	.04
No. 2 Mixed	.03	@	.04
Corduroy	.02	@	.03
New Canvas	.03½	@	.04½
New Black Mixed	.02½	@	.03½

Domestic Rags (Old)

White No. 1—			
Repacked	2.50	@	3.50
Miscellaneous	1.75	@	2.25
M. G.	3.00	@	3.75
Thirds and Blues—			
Miscellaneous	1.00	@	1.50
Repacked	1.50	@	2.00
Black Stockings (Export)	2.00	@	3.50
Roofing Stock—			
Foreign No. 1	.50	@	.75
Repacked	.70	@	.85

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25	@	1.50
Domestic	1.50	@	1.75
Manila Rope	2.00	@	2.25
Sisal Rope	1.25	@	1.50
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.25	@	1.50
No. 2	.80	@	1.00
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.15	@	1.45
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.25	@	2.30
No. 2 Hard White	1.90	@	2.00
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.25	@	1.50
No. 1 Mixed	—	@	.75
No. 2 Mixed	—	@	.50
Solid Ledger Stock	1.50	@	1.60
Writing Paper	1.10	@	1.20
No. 1 Books, heavy	—	@	.70
No. 2 Books, light	—	@	.50
No. 1 New Manila	—	@	1.40
No. 1 Old Manila	—	@	.70
Print Manila	—	@	.60
Container Manila	—	@	.50
Old Kraft	1.00	@	1.10
Common Paper	—	@	.20
No. 1 Mixed Paper	—	@	.25
Straw Board Chip	—	@	.30
Binders Board Chip	—	@	.30
Corrugated Board	—	@	.50
Overissue News	—	@	.50
Old Newspapers	—	@	.30

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.06	@	.12½
Rag Content	.12	@	.30
All Rag	36	@	.52½
Bonds—			
Sulphite	.07¼	@	.11
Rag Content	.12	@	.30
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¾	@	.05
No. 2 Kraft	.03¾	@	.04½
(F. o. b. Boston)			
Southern Kraft	.03¾	@	.04½

(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)

Common Bogus	.02	@	.02¼

(Delivered New England points)

News Print, rolls	44.50	@	—
Straw Board, rolls	.009	—	@35.00
Straw Board in Sheets basis 35s to 70s	—		@40.00
Filled News Board	40.00		@45.00
Chip Board	37.50		@40.00
Chip Board (Creasing)	37.50		@40.00
Single Manila Lined Chip	47.50		@52.50
Single White, Patent Coated News Board (Bender)	57.50		@65.00
" " "	70.00		@75.00
Binder Boards (Standard Grade)	67.00		@75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.20	@	2.35
No. 1 Soft White	1.75	@	2.00
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.75	@	—
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.95	@	1.05
No. 1 Books, heavy	.85	@	.95
No. 1 Books, light	.65	@	.75
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env Cuttings	1.25	@	1.30
No. 1 Old Manila	.75	@	.80
White Blank News	.95	@	1.05
No. 1 Kraft	.22	@	.23
Manila	.70	@	.75
No. 1 Mixed Papers	.15	@	.20
Print Manila	.40	@	.45
Overissue News	.45	@	.50
Old Newspapers	.35	@	.40
Box Board Chips	.32½	@	.35
Corrugated Boxes	.32½	@	.35
Screening Wrappers	.50	@	.60

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.00	@	2.12½
Domestic	2.25	@	2.37½
Transmission Rope	—	@	1.25
Mixed Strings	—	@	.30
Jute Rope	1.50	@	1.60
Jute Carpet Threads	.65	@	.70
Gunny No. 1—			
Foreign	1.40	@	1.45
Domestic	1.12½	@	1.17½
Bleachers Burlap	3.00	@	3.25
Scrap Burlap	1.15	@	1.20
Scrap Sisal	.90	@	1.10
Scrap Sisal for shredding	1.00	@	1.25
Wool Tares, heavy	1.25	@	1.30
New Burlap Cuttings	1.25	@	1.50
Australian Wool Pouches	2.25	@	2.50
Heavy Baling Bagging	1.40	@	1.50
Paper Mill Bagging	.90	@	1.10
Bagging No. 2	.50	@	.55

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¾	@	.02
New White No. 1	.06	@	.06½
New White No. 2	.04	@	.04½
Silesias No. 1	.04	@	—
New Black Silesias	.02½	@	.03
New Unbleached	.06½	@	.07
Blue Cheviot	—	@	4.65
Fancy	—	@	.02½
Washable	.02¼	@	—
Cottons—According to grades—			
Blue Overalls	—	@	.03¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.03	@	.03¾
O. D. Khaki	.02¾	@	.03
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.05¾

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	
White No. 1—			
Repacked	—	@	3.00
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Twos and Blues	1.25	@	1.50
Thirds and Blues			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Black Stockings	2.25	@	2.50
Roofing Stock			
No. 1	.80	@	.85
No. 2	.65	@	.70
No. 3	.55	@	.60

Foreign Rags

(F. o. b. Boston)

Dark Cottons	.85	@	.95
New White Shirt Cuttings	5.50	@	6.00
Dutch Blues	2.00	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.55	@	1.60
Old Linsey Garments	1.25	@	1.35

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.10½	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.10¾	@	—
No. 2 Colored	.09	@	.10
Ledgers (sulphite)			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.20	@	—
No. 3 M. F. (Carloads)	5.70	@	—
No. 4 M. F. (carloads)	4.75	@	—
No. 1 S. C. (carloads)	6.65	@	—
No. 3 S. C. (carloads)	6.20	@	—
No. 4 S. C. (carloads)	5.20	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	14.00	@	—
Wrapping—			
Rag Brown	4.25	@	—
White Wrap	2.22½	@	—
"B" Manila	4.75	@	—
No. 1 Manila	5.25	@	—
Fiber	5.25	@	—
Kraft, M. F.	5.75	@	—
Kraft No. 2	5.25	@	—

(F.O.B. Cars Toronto)

News, per ton—			
Rolls (contract)	45.50	@	—
Sheets	50.50	@	—

Pulp

(F. o. b. Mill)

Ground Wood	18.00	@	20.00
Sulphite easy bleaching	40.00	@	—
Sulphite, news grade	38.00	@	—
Sulphite, bleached	50.00	@	55.00
Sulphate	50.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.30
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.50
Printed Manilas	.70	@	.60
Kraft	1.25	@	1.50
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.60	@	—
No. 1 Mixed Paper	.50	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06	@	.06¼
Fancy Shirt Cuttings	.02¼	@	.02½

BENNETT

TRADE MARK

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Permanence is of importance not only for papers that must preserve valuable records, but also for practically all grades in which strength and sizing are factors. The tendency of many papers is to lose much of their strength and sizing on aging even a comparatively short period of time.

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2. Less size and alum is required to secure a given degree of sizing, which reduces the total acidity of the finished paper. This is more important than the pH acidity of the white water.

(This is one of a series of advertisements dealing with the profitable application of Bennett Rosin-Wax Sizes. Additional information regarding the subjects discussed will be furnished on request.)

BENNETT INCORPORATED

CAMBRIDGE, MASS., U. S. A.

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ESTABLISHED 1872

SIXTY-THIRD YEAR

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We manufacture all grades suitable for both filling and coating.

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